

Appendix A – Multi Criteria Analysis Tables

Table 1: SAS 1 MCA Table

MCA criteria	Assessment Sub-Criteria	Scheme Option 1A1	Scheme Option 1A2	Scheme Option 1B1	Scheme Option 1B2	Scheme Option 1H1	Scheme Option 1H2
Economy	1.a. Capital Cost	Capital Cost: €14.3M Length: 3.5km Cost/Km: 4.1M Indicative Scheme Infrastructure Works Cost - €13.65M Land Acquisition Cost - €0.67M	Capital Cost: €4.7M Length: 3.5km Cost/Km: 1.3M Indicative Scheme Infrastructure Works Cost - €4.67M Land Acquisition Cost - €0	Capital Cost: €9.7M Length: 2.55km Cost/Km: 3.8M Indicative Scheme Infrastructure Works Cost - €9.10M Land Acquisition Cost - €0.67M The cost excludes the permitted Part 8 scheme for Snugborough overpass.	Capital Cost: €2.3M Length: 2.55km Cost/Km: 0.9M Indicative Scheme Infrastructure Works Cost - €2.3M Land Acquisition Cost - €0	Capital Cost: €5.6M Length: 2.5km Cost/Km: 2.2M Indicative Scheme Infrastructure Works Cost - €3.30M Land Acquisition Cost - €2.29M	Capital Cost: €1.76M Length: 2.5km Cost/Km: 0.70M Indicative Scheme Infrastructure Works Cost - €1.76M Land Acquisition Cost - €0
	Rank						
	1.b. Transport Reliability and Quality (Journey Time)	Journey Time: 9 mins inbound and 8 mins outbound Length: 3.5km inbound and 3.06km outbound No. of signalised intersections: 6 inbound and 4 outbound	Journey Time: 9 mins inbound and 8 mins outbound Length: 3.5km inbound and 3.06km outbound No. of signalised intersections: 6 inbound and 4 outbound	Journey Time: 7 mins inbound and 8 mins outbound Length: 2.55km inbound and 2.35km outbound No. of signalised intersections: 6 inbound and 5 outbound	Journey Time: 7 mins inbound and 8 mins outbound Length: 2.55km inbound and 2.35km outbound No. of signalised intersections: 6 inbound and 5 outbound	Journey Time: 9 mins inbound and 8 mins outbound Length: 2.5km inbound and 3.06km outbound No. of signalised intersections: 9 inbound and 4 outbound	Journey Time: 9 mins inbound and 8 mins outbound Length: 2.5km inbound and 3.06km outbound No. of signalised intersections: 9 inbound and 4 outbound
	Rank						
Integration	2.a. Land Use Integration	Small areas of land zoned as high amenity will be required for construction. Potential for minor impacts. However, integrates with existing / planned residential, educational, medical and leisure uses in this established area.	Integrates with existing / planned residential, educational, medical and leisure uses in this established area. No change in land use character.	Small areas of land zoned as high amenity will be required for construction. Potential for minor impacts. However, integrates with existing / planned residential, educational, medical and leisure uses in this established area. Snugborough overpass has gone through Part 8 planning process for permission to widen the bridge which includes for a dedicated bus lane. Route Option 1B1 would integrate with this proposed development.	Integrates with existing / planned residential, educational, medical and leisure uses in this established area. No change in land use character.	Route Option 1H would impact on the planned development for Blanchardstown Village as per Blanchardstown Town Centre Development Framework/Masterplan, which states - "Remodel and traffic manage the Main Street roadway into a streetscape, designed to be a place for living and enjoyment.". Both Scheme Option 1H1 and 1H2 would reconfigure the streets with a focus primarily on transportation through the village rather than the land use objective as per the Masterplan. Scheme Option 1H1 would have the greatest impact based on the scale of redevelopment. In addition, small areas of land zoned as 'high amenity' would be taken for the construction of bus lanes. Landtake for 1H1 will also require acquisition of sections of gardens along the main street.	Route Option 1H would impact on the planned development for Blanchardstown Village as per Blanchardstown Town Centre Development Framework/Masterplan, which states - "Remodel and traffic manage the Main Street roadway into a streetscape, designed to be a place for living and enjoyment.". Both Scheme Option 1H1 and 1H2 would reconfigure the streets with a focus primarily on transportation through the village rather than the land use objective as per the Masterplan. In addition, small areas of land zoned as 'high amenity' would be taken for the construction of bus lanes.
	Rank						

	2.b. Residential Population and Employment Catchments	<p>Residential Population Catchments</p> <ul style="list-style-type: none"> - 5 minute walk catchment of approximately 500 - 10 minute walk catchment of approximately 1,500 - 15 minute walk catchment of approximately 4,500 <p>Employment catchments</p> <p>15 minute walk catchment of approximately 4,500</p> <p>Education catchments</p> <p>15 minute walk catchment of approximately 1,000</p>	<p>Residential Population Catchments</p> <ul style="list-style-type: none"> - 5 minute walk catchment of approximately 500 - 10 minute walk catchment of approximately 1,500 - 15 minute walk catchment of approximately 4,500 <p>Employment catchments</p> <p>15 minute walk catchment of approximately 4,500</p> <p>Education catchments</p> <p>15 minute walk catchment of approximately 1,000</p>	<p>Residential Population Catchments</p> <ul style="list-style-type: none"> - 5 minute walk catchment of approximately 500 - 10 minute walk catchment of approximately 2,500 - 15 minute walk catchment of approximately 8,000 <p>Employment catchments</p> <p>15 minute walk catchment of approximately 5,500</p> <p>Education catchments</p> <p>15 minute walk catchment of approximately 1,500</p>	<p>Residential Population Catchments</p> <ul style="list-style-type: none"> - 5 minute walk catchment of approximately 500 - 10 minute walk catchment of approximately 2,500 - 15 minute walk catchment of approximately 8,000 <p>Employment catchments</p> <p>15 minute walk catchment of approximately 5,500</p> <p>Education catchments</p> <p>15 minute walk catchment of approximately 1,500</p>	<p>Residential Population Catchments</p> <ul style="list-style-type: none"> - 5 minute walk catchment of approximately 1,500 - 10 minute walk catchment of approximately 4,500 - 15 minute walk catchment of approximately 10,500 <p>Employment catchments</p> <p>15 minute walk catchment of approximately 6,000</p> <p>Education catchments</p> <p>15 minute walk catchment of approximately 2,000</p>	<p>Residential Population Catchments</p> <ul style="list-style-type: none"> - 5 minute walk catchment of approximately 1,500 - 10 minute walk catchment of approximately 4,500 - 15 minute walk catchment of approximately 10,500 <p>Employment catchments</p> <p>15 minute walk catchment of approximately 6,000</p> <p>Education catchments</p> <p>15 minute walk catchment of approximately 2,000</p>
	Rank						
	2.c. Transport Network Integration	Potential for interchange with existing and proposed bus services at Blanchardstown Town Centre interchange hub.	Potential for interchange with existing and proposed bus services at Blanchardstown Town Centre interchange hub.	Potential for interchange with existing and proposed bus services at Blanchardstown Town Centre interchange hub.	Potential for interchange with existing and proposed bus services at Blanchardstown Town Centre interchange hub.	Potential for interchange with existing and proposed bus services at Blanchardstown Town Centre interchange hub.	Potential for interchange with existing and proposed bus services at Blanchardstown Town Centre interchange hub.
	Rank						
	2.d. Cycle Network Integration	Both directions of Route 1A align with secondary cycle route 4A and primary cycle route 5, as identified in the GDA Cycle Network Plan. All scheme options propose the same cycle facilities.	Both directions of Route 1A align with secondary cycle route 4A and primary cycle route 5, as identified in the GDA Cycle Network Plan. All scheme options propose the same cycle facilities.	Both directions of Route 1B align with secondary cycle route 4A and primary cycle route 5, as identified in the GDA Cycle Network Plan. All scheme options propose the same cycle facilities.	Both directions of Route 1B align with secondary cycle route 4A and primary cycle route 5, as identified in the GDA Cycle Network Plan. All scheme options propose the same cycle facilities.	Both directions of Route 1H align with secondary cycle route 4A and primary cycle route 5, as identified in the GDA Cycle Network Plan. All scheme options propose the same cycle facilities.	Both directions of Route 1H align with secondary cycle route 4A and primary cycle route 5, as identified in the GDA Cycle Network Plan. All scheme options propose the same cycle facilities.
	Rank						
	2.e. Traffic Network Integration	No impact on existing number of vehicular traffic lanes. The scheme option would also future proof to incorporate three lanes along this section of the N3.	Reduced number of traffic lanes to provide bus lanes.	No impact on existing number of vehicular traffic lanes. The scheme option would also future proof to incorporate three lanes along this section of the N3.	Reduced number of traffic lanes to provide bus lanes.	No impact on existing number of vehicular traffic lanes.	No impact on existing number of vehicular traffic lanes.
	Rank						
Accessibility & Social Inclusion	3.a. Key Trip Attractors (Education/Health/Commercial/Employment)	All route options serve Blanchardstown Town Centre but Route H also serves Blanchardstown Village and hence, scores higher.	All route options serve Blanchardstown Town Centre but Route H also serves Blanchardstown Village and hence, scores higher.	All route options serve Blanchardstown Town Centre but Route H also serves Blanchardstown Village and hence, scores higher.	All route options serve Blanchardstown Town Centre but Route H also serves Blanchardstown Village and hence, scores higher.	All route options serve Blanchardstown Town Centre but Route H also serves Blanchardstown Village and hence, scores higher.	All route options serve Blanchardstown Town Centre but Route H also serves Blanchardstown Village and hence, scores higher.
	Rank						
	3.b. Deprived Geographic Areas	This option primarily serves areas considered marginally above and marginally below average , as well as a small area considered affluent as identified in the Pobal Deprivation Index.	This option primarily serves areas considered marginally above and marginally below average , as well as a small area considered affluent as identified in the Pobal Deprivation Index.	This option primarily serves areas considered marginally above and marginally below average , as well as a small area considered affluent as identified in the Pobal Deprivation Index.	This option primarily serves areas considered marginally above and marginally below average , as well as a small area considered affluent as identified in the Pobal Deprivation Index.	This option primarily serves areas considered marginally above and marginally below average , as well as a small area considered affluent as identified in the Pobal Deprivation Index.	This option primarily serves areas considered marginally above and marginally below average , as well as a small area considered affluent as identified in the Pobal Deprivation Index.
	Rank						

Safety	4.a. Road Safety	No. of Junctions: 6 inbound and 4 outbound <u>Turning movements:</u> Inbound: 3 turning movements required Outbound: No turning movements required	No. of Junctions: 6 inbound and 4 outbound <u>Turning movements:</u> Inbound: 3 turning movements required Outbound: No turning movements required	No. of Junctions: 6 inbound and 5 outbound <u>Turning movements:</u> Inbound: 2 turning movements required Outbound: No turning movements required	No. of Junctions: 6 inbound and 5 outbound <u>Turning movements:</u> Inbound: 2 turning movements required Outbound: No turning movements required	No. of Junctions: 9 inbound and outbound <u>Turning movements:</u> Inbound: No turning movements required Outbound: No turning movements required	No. of Junctions: 9 inbound and outbound <u>Turning movements:</u> Inbound: 1 turning movement required Outbound: No turning movements required
	Rank						
Physical Activity	5.a Physical Activity	This criterion relates to the health benefits derived from using different transport modes. The subject scheme options under consideration relate to the same mode of travel (bus). As such, this criterion will not produce any relative differences between the options.	This criterion relates to the health benefits derived from using different transport modes. The subject scheme options under consideration relate to the same mode of travel (bus). As such, this criterion will not produce any relative differences between the options.	This criterion relates to the health benefits derived from using different transport modes. The subject scheme options under consideration relate to the same mode of travel (bus). As such, this criterion will not produce any relative differences between the options.	This criterion relates to the health benefits derived from using different transport modes. The subject scheme options under consideration relate to the same mode of travel (bus). As such, this criterion will not produce any relative differences between the options.	This criterion relates to the health benefits derived from using different transport modes. The subject scheme options under consideration relate to the same mode of travel (bus). As such, this criterion will not produce any relative differences between the options.	This criterion relates to the health benefits derived from using different transport modes. The subject scheme options under consideration relate to the same mode of travel (bus). As such, this criterion will not produce any relative differences between the options.
	Rank						
Environment	6.a. Archaeology and Cultural Heritage	30m from a Mill (DU013-035). Due to extent of works, no likely significant impacts are predicted.	30m from a Mill (DU013-035). Due to extent of works, no likely significant impacts are predicted.	30m from a Mill (DU013-035). Due to extent of works, no likely significant impacts are predicted.	30m from a Mill (DU013-035). Due to the extent of the works, no likely significant impacts are predicted.	No likely significant impact.	No likely significant impact
	Rank						
	6.b. Architectural Heritage	30m from Ranelagh Bridge, Blanchardstown (Reg. No. 11354004). Due to extent of works, no likely significant impacts are predicted.	30m from Ranelagh Bridge, Blanchardstown (Reg. No. 11354004). Due to extent of works, no likely significant impacts are predicted.	30m from Ranelagh Bridge, Blanchardstown (Reg. No. 11354004). Due to extent of works, no likely significant impacts are predicted.	30m from Ranelagh Bridge, Blanchardstown (Reg. No. 11354004). Due to extent of works, no likely significant impacts are predicted.	100m from St Brigid's Church (Reg. No. 11354001), 30m from Ranelagh Bridge, Blanchardstown (Reg. No. 11354004). Significant impacts are not likely due to the extent of the works.	100m from St Brigid's Church (Reg. No. 11354001), 30m from Ranelagh Bridge, Blanchardstown (Reg. No. 11354004). Significant impacts are not likely due to the extent of the works.
	Rank						
	6.c. Flora & Fauna	Small areas of land zoned as 'high amenity' grassland would be lost due to construction. Removal of areas of mature trees which were planted as part of the Blanchardstown Bypass. Mammal surveys will be required along the proposed route. Potential impacts on the river Tolka if widening of the roadbridge is required.	No likely significant impact on flora and fauna.	Small areas of land zones as 'high amenity area' would be lost due to road widening. Removal of mature trees planted as part of the Blanchardstown Bypass to facilitate road and bridge widening. Mammal surveys will be required along the proposed route. Potential impacts on the river Tolka due to widening of the roadbridge.	No likely significant impact on Biodiversity.	Small amounts of zoned 'high amenity' land would be lost due to junction and road widening. 11 trees along the Main Street would also be removed. Mammal surveys will be required along the preferred route.	11 trees along the Main Street would be removed due to road widening.
	Rank						
6.d. Soils and Geology	The majority of the area would be within the existing road extent. Additional lands will be needed to facilitate the works.	The proposed route would be within the existing road extent.	The majority of the area would be within the existing road extent. Additional lands will be needed for junction update. No likely significant impacts.	The proposed route would be within the existing road extent.	Landtake would be required for road widening along this section.	No land take would be required.	
Rank							

	6.e. Hydrology	Minor impacts on the River Tolka likely if the roadbridge is to be widened (additional shadowing etc.). Potential for minor impacts during construction.	No likely significant impact.	Potential impacts to the River Tolka if roadbridge is to be widened or if works are to be carried out on embankments.	No likely significant impact.	No likely significant impact.	No likely significant impact.
	Rank						
	6.f. Landscape and Visual	No protected views will be affected.	No protected views will be affected.	No protected views will be affected.	No protected views will be affected.	Existing trees within Blanchardstown Village will be remove, which would impact the streetscape.	Existing trees within Blanchardstown Village will be remove, which would impact the streetscape.
	Rank						
	6.g. Air Quality	No likely significant impact.	Potential for negative impacts on air quality if increased congestion occurs as a result of reducing the number of traffic lanes throughout the section.	No likely significant impact. Widening of the Snugborough Rd Bridge (R843) may have a significant impact during construction.	Potential negative impacts on air quality if increased congestion occurs as a result of reducing the number of traffic lanes throughout the section.	The route travels through residential and town centre land zones however buses already service this route. Closer proximity of residential properties to carriageway due to carriageway widening and the addition of bus lanes in both directions.	The route travels through residential and town centre land zones however buses already service this route. Closer proximity of residential properties to carriageway due to carriageway widening and the addition of bus lanes in both directions.
	Rank						
	6.h. Noise & Vibration	No likely significant impact.	Potential for negative impacts on air quality if increased congestion occurs as a result of reducing the number of traffic lanes throughout the section.	No likely significant impact. Widening of the Snugborough Rd Bridge (R843) may have a significant impact during construction.	Potential negative impacts on air quality if increased congestion occurs as a result of reducing the number of traffic lanes throughout the section.	The route travels through residential and town centre land zones however buses already service this route. Closer proximity of residential properties to carriageway due to carriageway widening and the addition of bus lanes in both directions.	The route travels through residential and town centre land zones however buses already service this route. Closer proximity of residential properties to carriageway due to carriageway widening and the addition of bus lanes in both directions.
	Rank						
	6.i. Land Use Character	No impact on parking.	No impact on parking.	No impact on parking.	No impact on parking.	On-street parking would be removed in Blanchardstown Village to facilitate the works.	On-street parking would be removed in Blanchardstown Village to facilitate the works.
	Rank						

Table 2: SAS 2 MCA Table

MCA criteria	Assessment Sub-Criteria	Scheme Option 2A1	Scheme Option 2A2	Scheme Option 2A3
Economy	1.a. Capital Cost	Capital Cost: €11.9M Length: 4.5km Cost/Km: 2.64M Indicative Scheme Infrastructure Works Cost - € 7.64M Land Acquisition Cost - € 4.27M	Capital Cost: €5.48M Length: 4.5km Cost/Km: 1.22M Indicative Scheme Infrastructure Works Cost - € 5.48M Land Acquisition Cost - € 0	Capital Cost: €11.1M Length: 4.5km Cost/Km: 2.47M Indicative Scheme Infrastructure Works Cost - € 6.39M Land Acquisition Cost - € 3.45M
	Rank			
	1.b. Transport Reliability and Quality (Journey Time)	Journey Time: 14 mins both directions Length: 4.5km No. of signalised intersections: 8	Journey Time: 15 mins inbound and 17 mins outbound Length: 4.5km No. of signalised intersections: 8	Journey Time: 14 mins both directions Length: 4.5km No. of signalised intersections: 8
Rank				
Integration	2.a. Land Use Integration	Integrates with existing / planned residential, educational, medical and leisure uses in this established area.	Integrates with existing / planned residential, educational, medical and leisure uses in this established area.	Integrates with existing / planned residential, educational, medical and leisure uses in this established area.
	Rank			
	2.b. Residential Population and Employment Catchments	Both scheme options use the same bus stops, hence the residential and employment catchments are the same.	Both scheme options use the same bus stops, hence the residential and employment catchments are the same.	Both scheme options use the same bus stops, hence the residential and employment catchments are the same.
	Rank			
	2.c. Transport Network Integration	Integrates with existing bus services along route 2A and potential for integration with train.	Integrates with existing bus services along route 2A and potential for integration with train.	Integrates with existing bus services along route 2A and potential for integration with train.
	Rank			
	2.d. Cycle Network Integration	Both directions of Route 2A align with secondary cycle route 4a as identified in the GDA Cycle Network Plan. See report Section 2 Figure 2.2. Scheme Option 2A1 scores higher than 2A2 and 2A3 due to the proposed segregated cycle lanes in both directions along the entire length 4.5km of Route 2A.	Both directions of Route 2A align with secondary cycle route 4a as identified in the GDA Cycle Network Plan. See report Section 2 Figure 2.2 Scheme Option 2A2 scores lower than 2A1 as it does not propose to provide segregated cycle lanes along the entire 4.5km of route 2A. Scheme Option 2A2 would provide 4.25km of inbound segregated cycle lanes and 3.87km of outbound segregated cycle lanes.	Both directions of Route 2A align with secondary cycle route 4a as identified in the GDA Cycle Network Plan. See report Section 2 Figure 2.2. Scheme Option 2A3 scores higher than 2A2 due to the proposed segregated two-way facility along the entire 4.5km of the route. Scheme option 2A3 would require toucan crossings for cyclists to access the facility (in one direction); thereby reducing ease of access. Scheme Option 2A1 would be more practical in terms of cyclist manoeuvrability along the route and thus scores higher.
Rank				
2.e. Traffic Network Integration	Scheme Option 2A1 proposals would incorporate traffic and segregated bus / cyclist facilities on both the inbound and outbound carriageways for the entirety of the section. To facilitate this, widening of the existing carriageway is required along the majority of the route between Halfway House Roundabout and Cabra Road junction, with landtake required in place. Removal of the existing trees adjacent to the carriageway and on-street parking would also be required to facilitate carriageway widening.	Scheme Option 2A2 proposals would incorporate a variation to the 2A1. Segregated bus and cycle lanes would be provided along the majority of the 4.5km route, however, buses would mix with cyclists for a total 250m in the inbound direction and 630m in the outbound direction. Carriageway widening would be required between Halfway House Roundabout and Cabra Road junction, but no land take would be required. Removal of the existing trees adjacent to the carriageway and on-street parking	Scheme Option 2A3 proposals would be akin to Scheme Option 2A1 in terms of traffic and bus infrastructure; the difference being that 2A3 proposes a two-way cycle track on one side of the road rather than inbound/outbound lanes either side of the road (as per 2A1). To facilitate continuous segregated bus lanes and a two-way cycle track, widening of the existing carriageway would be required along the majority of the route between Halfway House Roundabout and Cabra Road junction, with land take required in places. Removal of on-street parking and	

			would also be required to facilitate carriageway widening.	existing trees adjacent to the carriageway would also be required to facilitate carriageway widening. Refer to Appendix H for concept drawings.
	Rank			
Accessibility & Social Inclusion	3.a. Key Trip Attractors (Education/Health/Commercial/Employment)	Both scheme options follow the same route and hence, serve the same trip attractors.	Both scheme options follow the same route and hence, serve the same trip attractors.	Both scheme options follow the same route and hence, serve the same trip attractors.
	Rank			
	3.b. Deprived Geographic Areas	This option serves areas considered very affluent, affluent, marginally above and marginally below , as identified in the Pobal Deprivation Index.	This option serves areas considered very affluent, affluent, marginally above and marginally below , as identified in the Pobal Deprivation Index.	This option serves areas considered very affluent, affluent, marginally above and marginally below , as identified in the Pobal Deprivation Index.
	Rank			
Safety	4.a. Road Safety	No. of Junctions: 9 <u>Turning movements:</u> Inbound: No turning movements required Outbound: No turning movements required Due to proposed segregation of buses and cyclists, Scheme Option 2A1 scores higher than 2A2.	No. of Junctions: 9 <u>Turning movements:</u> Inbound: No turning movements required Outbound: No turning movements required Scheme Option 2A2 does not propose the same level of segregation of buses and cyclists as 2A1. Buses would mix with cyclists for 250m in the inbound direction and 630m in the outbound direction.	No. of Junctions: 9 <u>Turning movements:</u> Inbound: No turning movements required Outbound: No turning movements required Due to proposed segregation of buses and cyclists, Scheme Option 2A3 scores higher than 2A2. However, due to one cyclist lane (within the two-way facility) travelling contraflow to traffic, there is potential for conflicts at numerous driveways / property accesses. As a result, this scores lower than 2A1.
	Rank			
Physical Activity	5.a Physical Activity	This criterion relates to the health benefits derived from using different transport modes. The subject scheme options under consideration relate to the same mode of travel (bus). As such, this criterion will not produce any relative differences between the options.	This criterion relates to the health benefits derived from using different transport modes. The subject scheme options under consideration relate to the same mode of travel (bus). As such, this criterion will not produce any relative differences between the options.	This criterion relates to the health benefits derived from using different transport modes. The subject scheme options under consideration relate to the same mode of travel (bus). As such, this criterion will not produce any relative differences between the options.
	Rank			
Environment	6.a. Archaeology and Cultural Heritage	No likely significant impact.	No likely significant impact.	No likely significant impact.
	Rank			
	6.b. Architectural Heritage	St Vincent's Centre Gate Lodge is located just outside the proposed road boundary. St Vincent's Centre Church/Chapel and Workhouse are also located in the same grounds, within 50m of the proposed road extent. Short term minor impacts may occur.	St Vincent's Centre Gate Lodge is located just outside the proposed road boundary. St Vincent's Centre Church/Chapel and Workhouse are also located in the same grounds, within 50m of the proposed road extent. Short term minor impacts may occur.	St Vincent's Centre Gate Lodge is located just outside the proposed road boundary. St Vincent's Centre Church/Chapel and Workhouse are also located in the same grounds, within 50m of the proposed road extent. Short term minor impacts may occur.
	Rank			
	6.c. Flora & Fauna	The installation of bus and cycle lanes would require the removal of existing trees within the road boundary, approximately 160 trees. Also, a number of trees behind the road boundary would require removal where widening is shown. Mammal surveys will be required along the preferred route.	The installation of bus and cycle lanes would require the removal of existing trees within the road boundary, approximately 160 trees. Mammal surveys will be required along the preferred route.	The installation of bus and cycle lanes would require the removal of existing trees within the road boundary, approximately 160 trees. Also, a number of trees behind the road boundary would require removal where widening is shown. Mammal surveys will be required along the preferred route.
	Rank			
	6.d. Soils and Geology	No likely significant impact.	No likely significant impact.	No likely significant impact.
	Rank			

6.e. Hydrology	No likely significant impact.	No likely significant impact.	No likely significant impact.
Rank			
6.f. Landscape and Visual	Trees which lined the side of Navan Rd will be removed. No protected views will be affected.	Trees which lined the side of Navan Rd will be removed. No protected views will be affected.	Trees which lined the side of Navan Rd will be removed. No protected views will be affected.
Rank			
6.g. Air Quality	The route travels through residential land zones however buses already service this route. Closer proximity of residential properties to carriageway due carriageway widening and the addition of bus lanes in both directions.	The route travels through residential land zones however buses already service this route. Closer proximity of residential properties to carriageway due carriageway widening and the addition of bus lanes in both directions.	The route travels through residential land zones however buses already service this route. Closer proximity of residential properties to carriageway due carriageway widening and the addition of bus lanes in both directions.
Rank			
6.h. Noise & Vibration	The route travels through residential land zones however buses already service this route. Closer proximity of residential properties to carriageway due carriageway widening and the addition of bus lanes in both directions.	The route travels through residential land zones however buses already service this route. Closer proximity of residential properties to carriageway due carriageway widening and the addition of bus lanes in both directions.	The route travels through residential land zones however buses already service this route. Closer proximity of residential properties to carriageway due carriageway widening and the addition of bus lanes in both directions.
Rank			
6.i. Land Use Character	This scheme option would remove all on-street parking.	This scheme option would remove all on-street parking.	This scheme option would remove all on-street parking.
Rank			

Table 3: SAS 3 MCA Table

Assessment Criterion	Assessment Sub-Criterion	Route Option N1 (Stoneybatter / Blackhall Place / Queen Street)	Route Option N2 (Grangegorman / Constitution Hill)	Route Option N3 (Stoneybatter / Church Street)	Route Option N4 (Grangegorman / King Street / Queen Street)	Route Option N5 (Grangegorman / Church Street)	Route Option N6 (Stoneybatter / Blackhall Place)	Route Option 7 (Stoneybatter / Queen Street)
Economy	Capital Cost	<p>Indicative Scheme Infrastructure Works Cost €16.5m</p> <ul style="list-style-type: none"> - Realign and modify Navan Road/Old Cabra Road junction to facilitate Bus priority. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Old Cabra Road to provide Bus priority or virtual priority on the extent of this option to North Circular Road; - Modify and realign Old Cabra Road/North Circular Road junction to accommodate Bus priority and Bus stop. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Prussia Street to provide Bus priority or virtual priority on the extent of this route option to Aughrim street; - Signalise and reconfigure Prussia Street/Aughrim Street junction to provide Bus priority and Bus stop provision; - Rearrange, realign and remove some parking/loading provision on Manor Street to provide continuous bus lanes to Stoneybatter; - Reconfigure Stoneybatter and relocate bus stops to cater for Bus passage; - Bus gate required at Stoneybatter/North Brunswick Street junction to implement Bus priority southbound; - Reconfigure and implement any necessary traffic 	<p>Indicative Scheme Infrastructure Works Cost €22.4m</p> <ul style="list-style-type: none"> - Realign and modify Navan Road/Old Cabra Road junction to facilitate Bus priority. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Old Cabra Road to provide Bus priority or virtual priority on the extent of this option to North Circular Road; - Modify and realign Old Cabra Road/North Circular Road junction to accommodate Bus priority and Bus stop. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Prussia Street to provide Bus priority or virtual priority on the extent of this route option to St. Joseph's Road; OR - Reconfigure North Circular Road between Old Cabra Road and the new Grangegorman Bus access to provide a Bus priority or virtual priority along the extent of this route option. - Realign existing Grangegorman service access on North Circular Road to accommodate Bus; OR - Reconfigure and signalise junction at Prussia Street/St. Joseph's Road to allow through Bus access. Implement any necessary turning restrictions to ensure priority; - Reconfigure existing 	<p>Indicative Scheme Infrastructure Works Cost €20.8m</p> <ul style="list-style-type: none"> - Realign and modify Navan Road/Old Cabra Road junction to facilitate Bus priority. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Old Cabra Road to provide Bus priority or virtual priority on the extent of this option to North Circular Road; - Modify and realign Old Cabra Road/North Circular Road junction to accommodate Bus priority and Bus stop. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Prussia Street to provide Bus priority or virtual priority on the extent of this route option to Aughrim street; - Signalise and reconfigure Prussia Street/Aughrim Street junction to provide Bus priority and Bus stop provision; - Rearrange, realign and remove some parking/loading provision on Manor Street to provide continuous Bus/bus lanes to Stoneybatter; - Reconfigure Stoneybatter and relocate bus stops to cater for Bus passage; - Bus gate required at Stoneybatter/North Brunswick Street junction to implement Bus priority southbound; 	<p>Indicative Scheme Infrastructure Works Cost €22.1m</p> <ul style="list-style-type: none"> - Realign and modify Navan Road/Old Cabra Road junction to facilitate Bus priority. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Old Cabra Road to provide Bus priority or virtual priority on the extent of this option to North Circular Road; - Modify and realign Old Cabra Road/North Circular Road junction to accommodate Bus priority and Bus stop. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Prussia Street to provide Bus priority or virtual priority on the extent of this route option to St. Joseph's Road; OR - Reconfigure North Circular Road between Old Cabra Road and the new Grangegorman Bus access to provide a Bus priority or virtual priority along the extent of this route option. - Realign existing Grangegorman service access on North Circular Road to accommodate Bus; OR - Reconfigure and signalise junction at Prussia Street/St. Joseph's Road to allow through Bus 	<p>Indicative Scheme Infrastructure Works Cost €22.4m</p> <ul style="list-style-type: none"> - Realign and modify Navan Road/Old Cabra Road junction to facilitate Bus priority. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Old Cabra Road to provide Bus priority or virtual priority on the extent of this option to North Circular Road; - Modify and realign Old Cabra Road/North Circular Road junction to accommodate Bus priority and Bus stop. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Prussia Street to provide Bus priority or virtual priority on the extent of this route option to St. Joseph's Road; OR - Reconfigure North Circular Road between Old Cabra Road and the new Grangegorman Bus access to provide a Bus priority or virtual priority along the extent of this route option. - Realign existing Grangegorman service access on North Circular Road to accommodate Bus; OR - Reconfigure and 	<p>Indicative Scheme Infrastructure Works Cost €19.5m</p> <ul style="list-style-type: none"> - Realign and modify Navan Road/Old Cabra Road junction to facilitate Bus priority. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Old Cabra Road to provide Bus priority or virtual priority on the extent of this option to North Circular Road; - Modify and realign Old Cabra Road/North Circular Road junction to accommodate Bus priority and Bus stop. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Prussia Street to provide Bus priority or virtual priority on the extent of this route option to Aughrim street; - Signalise and reconfigure Prussia Street/Aughrim Street junction to provide Bus priority and Bus stop provision; - Rearrange, realign and remove some parking/loading provision on Manor Street to provide continuous bus lanes to Stoneybatter; - Reconfigure Stoneybatter and relocate bus stops to cater for Bus passage; 	<p>Indicative Scheme Infrastructure Works Cost €19.5m</p> <ul style="list-style-type: none"> - Realign and modify Navan Road/Old Cabra Road junction to facilitate Bus priority. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Old Cabra Road to provide Bus priority or virtual priority on the extent of this option to North Circular Road; - Modify and realign Old Cabra Road/North Circular Road junction to accommodate Bus priority and Bus stop. Implement any necessary turning restrictions to ensure priority; - Reconfigure and implement any necessary traffic restrictions on Prussia Street to provide Bus priority or virtual priority on the extent of this route option to Aughrim street; - Signalise and reconfigure Prussia Street/Aughrim Street junction to provide Bus priority and Bus stop provision; - Rearrange, realign and remove some parking/loading provision on Manor Street to provide continuous bus lanes to Stoneybatter; - Reconfigure Stoneybatter and relocate bus stops to cater for Bus passage;

		<p>restrictions on Blackhall Place between North Brunswick Street and King Street North to ensure Bus priority or virtual priority;</p> <ul style="list-style-type: none"> - Reconfigure and Signalise Blackhall Place/King Street North junction to provide Bus priority; - Remove one traffic lane on King Street North to reconfigure for virtual Bus priority. - Reconfigure and upgrade King Street North/Queen Street junction to facilitate Bus priority provision; - Reconfigure Queen Street by removing one traffic lane to provide full Bus priority and 2-way segregated cycle provision to the Liffey; - Reconfigure Blackhall Place to provide full Bus priority from the Liffey to King Street North; - Reconfigure modal interactions to provide virtual Bus priority, in conjunction with required Luas priorities; - Provision of cycle tracks and improved pedestrian facilities along route or along suitable parallel routes as per GDA Cycle Network Plan. <p>Land Acquisition Cost</p> <ul style="list-style-type: none"> - n/a 	<p>Grangegorman carriageways to cater for full Bus priority across the extent of this route option; through the Grangegorman campus to Grangegorman lower.</p> <ul style="list-style-type: none"> - Reconfigure existing access from Grangegorman service route on Grangegorman Lower to provide virtual Bus priority. Limit access from Rathdown Road; - Upgrade Grangegorman Lower to provide virtual Bus priority for the extent of this route option; - Reconfigure new junction to the proposed new service link road on Grangegorman Lower to accommodate Bus priority; - Reconfigure existing Grangegorman carriageways to cater for full Bus priority across the extent of this route option to Constitution Hill; - Signalise and implement any necessary turning restrictions at Broadstone/Constitution Hill junction to facilitate Bus priority or virtual priority; - Reconfigure Constitution Hill to provide continuous bus priority along the extent of this route option up to Church Street; - Reconfigure and implement necessary turning restrictions to ensure virtual Bus priority at Church Street/King Street North junction; - Reconfigure Church Street to provide virtual Bus priority for the extent of this route option to May's Lane; - Reconfigure modal interactions to provide virtual Bus priority, in conjunction with required Luas priorities; - Reconfigure Church Street to provide Bus priority between May Lane and Inns Quay; - Provision of cycle tracks and improved pedestrian facilities along route or along 	<ul style="list-style-type: none"> - Reconfigure and implement any necessary traffic restrictions on Blackhall Place between North Brunswick Street and King Street North to ensure Bus priority or virtual priority; - Reconfigure and Signalise Blackhall Place/King Street North junction to provide Bus priority; - Remove one traffic lane and reconfigure King Street North to provide Bus priority to George's Lane; - Reconfigure and implement any necessary turning restrictions at King Street North/George's Lane junction to facilitate Bus priority or virtual priority; - Remove one traffic lane and reconfigure George's Lane to provide Bus priority or virtual priority and two-way segregated cycle provision; - Reconfigure and implement any necessary turning restrictions at George's Lane/Brunswick Street junction to provide Bus priority or virtual priority; - Remove one traffic lane and reconfigure Brunswick Street North to provide Bus priority inbound from George's Lane to Church Street and virtual priority outbound to Blackhall Place. Implement any necessary traffic restrictions; - Remove one traffic lane and reconfigure King Street North to provide outbound Bus priority from Church Street to George's Lane. Implement any necessary traffic restrictions; - Reconfigure King Street North/Church Street Upper junction and implement any necessary turning restrictions to ensure 	<p>access. Implement any necessary turning restrictions to ensure priority;</p> <ul style="list-style-type: none"> - Reconfigure existing Grangegorman carriageways to cater for full Bus priority across the extent of this route option; through the Grangegorman campus to Grangegorman lower. - Reconfigure existing access from Grangegorman service route on Grangegorman Lower to provide virtual Bus priority. Limit access from Rathdown Road ; - Upgrade Grangegorman Lower to provide virtual Bus priority for the extent of this route option; - Reconfigure and implement any necessary turning restrictions at Grangegorman Lower / North Brunswick Street junction to provide virtual Bus priority; - Reconfigure Grangegorman Lower / North Brunswick Street junction to facilitate 2-way virtual Bus priority onto George's Lane; - Reconfigure George's Lane to provide two-way Bus priority or virtual priority and cycle provision; - Reconfigure George's Lane / King Street North to facilitate Bus priority. Implement any necessary turning restrictions to ensure priority; - Remove one traffic lane and reconfigure King Street North to provide outbound Bus priority; - Reconfigure Blackhall Place to provide full Bus priority from the Liffey to King Street North; - Reconfigure Queen Street to provide full Bus priority and 2-way segregated cycling provision for the extent of this route option; 	<p>signalise junction at Prussia Street/St. Joseph's Road to allow through Bus access. Implement any necessary turning restrictions to ensure priority;</p> <ul style="list-style-type: none"> - Reconfigure existing Grangegorman carriageways to cater for full Bus priority across the extent of this route option; through the Grangegorman campus to Grangegorman lower. - Reconfigure existing access from Grangegorman service route on Grangegorman Lower to provide virtual Bus priority. Limit access from Rathdown Road ; - Upgrade Grangegorman Lower to provide virtual Bus priority for the extent of this route option; - Reconfigure and implement any necessary turning restrictions at Grangegorman Lower / North Brunswick Street junction to facilitate virtual Bus priority; - Reconfigure George's Lane to provide outbound Bus priority and 2-way segregated cycle provision; - Reconfigure and implement any necessary turning restrictions at George's Lane / King Street North junction to facilitate virtual Bus priority; - Remove one traffic lane and reconfigure King Street North to provide Bus priority for the extent of this route option to Church Street; - Remove one traffic lane and reconfigure North Brunswick Street to provide Bus priority for the extent of this route option to Church Street; - Reconfigure and 	<ul style="list-style-type: none"> - Bus gate required at Stoneybatter/North Brunswick Street junction to implement Bus priority southbound to North Brunswick Street / Queen Street; - Reconfigure and implement any necessary traffic restrictions on Blackhall Place between North Brunswick Street and King Street North to ensure Bus priority or virtual priority; - Remove one traffic lane on North Brunswick Street to reconfigure for virtual Bus priority. - Reconfigure and upgrade North Brunswick Street/George's Lane/Queen Street junction to facilitate Bus priority provision; - Reconfigure King Street North to provide 2-way segregated cycle provision; - Reconfigure Queen Street by removing one traffic lane to provide full Bus priority and 2-way segregated cycle provision to Blackhall Street; - Reconfigure Blackhall Street by removing one traffic lane to provide full Bus priority; - Reconfigure Blackhall Place by removing one traffic lane to provide full bus priority northbound between Blackhall Street and King Street North; - Reconfigure Blackhall Place to provide full Bus priority from the Liffey to Blackhall Street; - Reconfigure modal interactions to provide virtual Bus priority, in conjunction with required Luas priorities; - Provision of cycle tracks and improved pedestrian facilities along route or 	<ul style="list-style-type: none"> - Bus gate required at Stoneybatter/North Brunswick Street junction to implement Bus priority southbound to King Street North; - Bus gate required at Blackhall Place / Blackhall Street junction to implement Bus priority northbound to King Street North; - Reconfigure and implement any necessary traffic restrictions on Blackhall Place between North King Street North and Blackhall Street to ensure Bus priority or virtual priority; - Remove one traffic lane on Blackhall Street to reconfigure for virtual Bus priority. - Reconfigure King Street North by removing one lane of traffic and providing cycle facilities; - Reconfigure and upgrade King Street North/Queen Street junction to facilitate Bus priority provision; - Reconfigure Queen Street by removing one traffic lane to provide full Bus priority and 2-way segregated cycle provision to Blackhall Street; - Reconfigure Queen Street by removing two southbound traffic lanes and allowing northbound traffic circulation between the Liffey and Blackhall Street; - Reconfigure modal interactions to provide virtual Bus priority, in conjunction with required Luas priorities; - Provision of cycle tracks and improved pedestrian facilities along route or along suitable parallel routes as per GDA Cycle Network Plan. <p>Land Acquisition Cost</p>
--	--	---	---	---	---	---	--	---

		<p>suitable parallel routes as per GDA Cycle Network Plan.</p> <p>Land Acquisition Cost</p> <ul style="list-style-type: none"> - n/a 	<p>virtual Bus priority;</p> <ul style="list-style-type: none"> - Reconfigure North Brunswick Street/ Church Street Upper junction and implement any necessary turning restrictions to ensure virtual Bus priority; - Reconfigure Church Street to provide virtual Bus priority for the extent of this route option to May's Lane - Reconfigure modal interactions to provide virtual Bus priority, in conjunction with required Luas priorities; - Reconfigure Church Street to provide Bus priority between May Lane and Inns Quay; - Provision of cycle tracks and improved pedestrian facilities along route or along suitable parallel routes as per GDA Cycle Network Plan. <p>Land Acquisition Cost</p> <ul style="list-style-type: none"> - n/a 	<ul style="list-style-type: none"> - Reconfigure modal interactions to provide virtual Bus priority, in conjunction with required Luas priorities; - Provision of cycle tracks and improved pedestrian facilities along route or along suitable parallel routes as per GDA Cycle Network Plan. <p>Land Acquisition Cost</p> <ul style="list-style-type: none"> - n/a 	<p>implement any necessary turning restrictions at North Brunswick Street/ Church Street junction to facilitate virtual Bus priority;</p> <ul style="list-style-type: none"> - Reconfigure and implement any necessary turning restrictions at King Street North / Church Street junction to facilitate virtual Bus priority; - Reconfigure Church Street to provide virtual Bus priority for the extent of this route option to May's Lane; - Reconfigure modal interactions to provide virtual Bus priority, in conjunction with required Luas priorities; - Reconfigure Church Street to provide Bus priority between May Lane and Inns Quay; - Provision of cycle tracks and improved pedestrian facilities along route or along suitable parallel routes as per GDA Cycle Network Plan. <p>Land Acquisition Cost</p> <ul style="list-style-type: none"> - n/a 	<p>along suitable parallel routes as per GDA Cycle Network Plan.</p> <p>Land Acquisition Cost</p> <p>n/a</p>	n/a
<i>Rank</i>							
Operation & Maintenance Cost	€2.5m	€3.4m	€3.15m	€3.35m	€3.4m	€2.5m	€2.5m
<i>Rank</i>							
Transport Reliability and Quality of Service	<p>Journey Time: 7 - 8 mins Length: 2.2km No. of Signalised Junctions: 7 Major junctions to be negotiated at:</p> <ul style="list-style-type: none"> • Navan Road / Old Cabra Road; • Old Cabra Road / North Circular; • Prussia /Aughrim Street; • Stoneybatter / King Street North; • King Street North/ Queen Street; • Luas Crossing; 	<p>Journey Time: 11-12 mins Length: 3.4km No. Of Signalised Junctions: 9 Major junctions to be negotiated at:</p> <ul style="list-style-type: none"> • Navan Road /Old Cabra Road; • Old Cabra Road / North Circular Road; • North Circular Road or Prussia Street/ Grangegorman Service Road; • Broadstone / Constitution Hill; • North Brunswick Street / Church Street; 	<p>Journey Time 9-10 mins Length: 2.8km No. Of Signalised Junctions: 10 Major junctions to be negotiated at:</p> <ul style="list-style-type: none"> • Navan Road /Old Cabra Road; • Old Cabra Road / North Circular Road; • Prussia /Aughrim Street; • Stoneybatter / King Street North; • King Street North / Queen Street ; • George's Place / 	<p>Journey Time: 11-12 mins Length: 3km No. Of Signalised Junctions: 8 Major junctions to be negotiated at:</p> <ul style="list-style-type: none"> • Navan Road /Old Cabra Road; • Old Cabra Road / North Circular Road; • North Circular Road or Prussia Street/ Grangegorman Service Road; • Grangegorman Road Lower / North Brunswick Street; • George's Place / King 	<p>Journey Time: 11-12 mins Length: 3.4km No. Of Signalised Junctions: 10 Major junctions to be negotiated at:</p> <ul style="list-style-type: none"> • Navan Road /Old Cabra Road; • Old Cabra Road / North Circular Road; • North Circular Road or Prussia Street/ Grangegorman Service Road; • Grangegorman Lower / North 	<p>Journey Time: 8-9 mins Length: 2.6km No. of Signalised Junctions: 9 Major junctions to be negotiated at:</p> <ul style="list-style-type: none"> • Navan Road / Old Cabra Road; • Old Cabra Road / North Circular; • Prussia /Aughrim Street; • Stoneybatter / North Brunswick Street; • North Brunswick Street/George's Lane; 	<p>Journey Time: 8-9 mins Length: 2.4km No. of Signalised Junctions: 10 Major junctions to be negotiated at:</p> <ul style="list-style-type: none"> • Navan Road / Old Cabra Road; • Old Cabra Road / North Circular; • Prussia /Aughrim Street; • Stoneybatter / North Brunswick Street; • Blackhall Place/King Street North;

		<ul style="list-style-type: none"> Quays Crossing. 	<ul style="list-style-type: none"> King Street North / Church Street; Red Line Luas Crossing; Church Street / Arran Quay. 	<p>North Brunswick Street;</p> <ul style="list-style-type: none"> North Brunswick Street / Church Street; King Street North / Church Street; Luas Crossing; Church Street / Arran Quay. 	<p>Street North;</p> <ul style="list-style-type: none"> King Street North / Blackhall Place; Luas Crossing; Quays Crossing. 	<p>Brunswick Street;</p> <ul style="list-style-type: none"> George's Place / King Street North; North Brunswick Street/ Church Street; King Street North / Church Street; Luas Crossing; Quays Crossing. 	<ul style="list-style-type: none"> George's Lane/ Queen Street; Blackhall Street/Backhall Place Luas Crossing; Quays Crossing. 	<ul style="list-style-type: none"> King Street North/ Queen Street; Queen Street/Blackhall Street; Blackhall Street/Backhall Place Luas Crossing; Quays Crossing.
	Rank							
Integration	Land Use Integration	<p>Could consolidate and enhance the inner city by linking the critical mass clusters of Grangegorman, Stoneybatter and Smithfield, enhancing and complimenting current regeneration in said areas, in compliance with SC1 of the Dublin City Development Plan. Could improve the physical integration and regeneration of Manor Street/Stoneybatter as important street/radial routes in the redevelopment of the SDRA 11 area, as per Dublin City Development Plan.</p>	<p>As per the Public Realm Strategy: <i>Grangegorman – Connections with the City</i>, this project could integrate the Grangegorman development into the surrounding districts and the city centre. However the conversion of the internal service road to accommodate a CBC will create a sense of segregation between the campus lands north and south of the service road due to the significant volumes of bus traffic redirected from Stoneybatter. Redirecting all buses away from the centre of Stoneybatter will negatively impact the integration of the village with the surrounding areas.</p>	<p>Could consolidate and enhance the inner city by linking the critical mass clusters of Grangegorman, Stoneybatter and Smithfield, enhancing and complimenting current regeneration in said areas, in compliance with SC1 of the Dublin City Development Plan. Could improve the physical integration and regeneration of Manor Street/Stoneybatter as important street/radial routes in the redevelopment of the SDRA 11 area, as per Dublin City Development Plan.</p>	<p>As per the Public Realm Strategy: <i>Grangegorman – Connections with the City</i>, this project could integrate the Grangegorman development into the surrounding districts and the city centre. However the conversion of the internal service road to accommodate a CBC will create a sense of segregation between the campus lands north and south of the service road due to the significant volumes of bus traffic redirected from Stoneybatter. Redirecting all buses away from the centre of Stoneybatter will negatively impact the integration of the village with the surrounding areas..</p>	<p>As per the Public Realm Strategy: <i>Grangegorman – Connections with the City</i>, this project could integrate the Grangegorman development into the surrounding districts and the city centre. However the conversion of the internal service road to accommodate a CBC will create a sense of segregation between the campus lands north and south of the service road due to the significant volumes of bus traffic redirected from Stoneybatter. Redirecting all buses away from the centre of Stoneybatter will negatively impact the integration of the village with the surrounding areas.</p>	<p>Could consolidate and enhance the inner city by linking the critical mass clusters of Grangegorman, Stoneybatter and Smithfield, enhancing and complimenting current regeneration in said areas, in compliance with SC1 of the Dublin City Development Plan. Could improve the physical integration and regeneration of Manor Street/Stoneybatter as important street/radial routes in the redevelopment of the SDRA 11 area, as per Dublin City Development Plan.</p>	<p>Could consolidate and enhance the inner city by linking the critical mass clusters of Grangegorman, Stoneybatter and Smithfield, enhancing and complimenting current regeneration in said areas, in compliance with SC1 of the Dublin City Development Plan. Could improve the physical integration and regeneration of Manor Street/Stoneybatter as important street/radial routes in the redevelopment of the SDRA 11 area, as per Dublin City Development Plan.</p>
	Rank							
	Residential Population and Employment Catchments	<p>Residential Population Catchments</p> <ul style="list-style-type: none"> 5 minute walk catchment of approximately 8,482 10 minute walk catchment of approximately 20,800 15 minute walk catchment of approximately 43,215 <p>Employment catchments</p> <p>15 minute walk catchment of approximately 28,074</p>	<p>Residential Population Catchments</p> <ul style="list-style-type: none"> 5 minute walk catchment of approximately 7,593 10 minute walk catchment of approximately 27,730 15 minute walk catchment of approximately 52,924 <p>Employment catchments</p> <p>15 minute walk catchment of approximately 44,207</p>	<p>Residential Population Catchments</p> <ul style="list-style-type: none"> 5 minute walk catchment of approximately 9,696 10 minute walk catchment of approximately 25,088 15 minute walk catchment of approximately 48,965 <p>Employment catchments</p> <p>15 minute walk catchment of approximately 41,591</p>	<p>Residential Population Catchments</p> <ul style="list-style-type: none"> 5 minute walk catchment of approximately 7,161 10 minute walk catchment of approximately 21,375 15 minute walk catchment of approximately 44,694 <p>Employment catchments</p> <p>15 minute walk catchment of approximately 27,875</p>	<p>Residential Population Catchments</p> <ul style="list-style-type: none"> 5 minute walk catchment of approximately 10,198 10 minute walk catchment of approximately 26,244 15 minute walk catchment of approximately 52,477 <p>Employment catchments</p> <p>15 minute walk catchment of approximately 42,785</p>	<p>Residential Population Catchments</p> <ul style="list-style-type: none"> 5 minute walk catchment of approximately 8,482 10 minute walk catchment of approximately 20,800 15 minute walk catchment of approximately 43,215 <p>Employment catchments</p> <p>15 minute walk catchment of approximately 28,074</p>	<p>Residential Population Catchments</p> <ul style="list-style-type: none"> 5 minute walk catchment of approximately 8,482 10 minute walk catchment of approximately 20,800 15 minute walk catchment of approximately 43,215 <p>Employment catchments</p> <p>15 minute walk catchment of approximately 28,074</p>
	Rank							
Transport Network Integration	<p>Integration with Luas Red Line at Smithfield / Collins Barracks; Almost directly serves existing Blanchardstown QBC corridor.</p>	<p>Integration with Luas Red Line at the Four Courts; Provides opportunity for integration with the Luas Cross City at Grangegorman / Broadstone; Directly serves existing</p>	<p>Integration with Luas Red Line at the Four Courts; Almost directly serves existing Blanchardstown QBC corridor.</p>	<p>Integration with Luas Red Line at Smithfield / Collins Barracks; Provides opportunity for integration with the Luas Cross City at Grangegorman; Almost directly serves existing Blanchardstown QBC corridor</p>	<p>Integration with Luas Red Line at the Four Courts; Provides opportunity for integration with the Luas Cross City at Grangegorman; Almost directly serves existing Blanchardstown</p>	<p>Integration with Luas Red Line at Smithfield / Collins Barracks; Almost directly serves existing Blanchardstown QBC corridor.</p>	<p>Integration with Luas Red Line at Smithfield / Collins Barracks; Almost directly serves existing Blanchardstown QBC corridor.</p>	

			Blanchardstown QBC corridor.		apart from Grangegorman section.	QBC corridor apart from Grangegorman section.		
	<i>Rank</i>							
	Cycling integration	This route option has the opportunity to implement the GDA Cycle Network Plan cycle facilities along the full extent of the route.	This route option has the opportunity to implement the GDA Cycle Network Plan cycle facilities along 51% of this route.	This route option has the opportunity to implement the GDA Cycle Network Plan cycle facilities along 64% of this route.	This route option has the opportunity to implement the GDA Cycle Network Plan cycle facilities along 50% of this route.	This route option has the opportunity to implement the GDA Cycle Network Plan cycle facilities along 52% of this route.	This route option has the opportunity to implement the GDA Cycle Network Plan cycle facilities along the full extent of the route.	This route option has the opportunity to implement the GDA Cycle Network Plan cycle facilities along the full extent of the route.
	<i>Rank</i>							
	Traffic Network Integration	The introduction of some turning movement restrictions for general traffic may be required to increase bus priority along the route; New bus lanes could conflict with the major north – south traffic route on Manor Street and the Old Cabra Road (R147); Bus priority through Stoneybatter would have an adverse impact on through traffic and local traffic; New bus lanes could conflict with the inner orbital traffic route at Blackhall Place and Queen Street.	The introduction of some turning movement restrictions for general traffic may be required to increase bus priority along the route; New bus lanes could conflict with the major north – south traffic route on the Old Cabra Road (R147), Prussia Street or North Circular Road; New bus lanes could conflict with the major north – south traffic route on Church Street (N1) and Constitution Hill (R108); Bus priority through Church Street would have an adverse impact on through traffic and local traffic.	The introduction of some turning movement restrictions for general traffic may be required to increase bus priority along the route; New bus lanes could conflict with the major north – south traffic route on Manor Street and the Old Cabra Road (R147); New bus lanes could conflict with the major east-west outer orbital traffic route on North Circular Road; Bus priority through Stoneybatter would have an adverse impact on through traffic and local traffic. New bus lanes could conflict with the major north – south traffic route on Church Street (N1); Bus priority through Church Street would have an adverse impact on through traffic and local traffic.	The introduction of some turning movement restrictions for general traffic may be required to increase bus priority along the route; New bus lanes could conflict with the major north – south traffic route on the Old Cabra Road (R147), Prussia Street or North Circular Road; New bus lanes could conflict with the major north – south traffic route on the Old Cabra Road (R147), Prussia Street or North Circular Road; New bus lanes could conflict with inner orbital traffic route at Blackhall Place and Queen Street.	The introduction of some turning movement restrictions for general traffic may be required to increase bus priority along the route; New bus lanes could conflict with the major north – south traffic route on Manor Street and the Old Cabra Road (R147); Bus priority through Stoneybatter would have an adverse impact on through traffic and local traffic; New bus lanes could conflict with the inner orbital traffic route at Blackhall Place and Queen Street.	The introduction of some turning movement restrictions for general traffic may be required to increase bus priority along the route; New bus lanes could conflict with the major north – south traffic route on Manor Street and the Old Cabra Road (R147); Bus priority through Stoneybatter would have an adverse impact on through traffic and local traffic; New bus lanes could conflict with the inner orbital traffic route at Blackhall Place and Queen Street.	The introduction of some turning movement restrictions for general traffic may be required to increase bus priority along the route; New bus lanes could conflict with the major north – south traffic route on Manor Street and the Old Cabra Road (R147); Bus priority through Stoneybatter would have an adverse impact on through traffic and local traffic; New bus lanes could conflict with the inner orbital traffic route at Blackhall Place and Queen Street.
	<i>Rank</i>							
Accessibility and Social Inclusion	Key Trip Attractors (Education/Health/Commercial/Employment)	<p>Hospitals</p> <ul style="list-style-type: none"> - n/a <p>Education</p> <ul style="list-style-type: none"> - DIT Grangegorman; - Stanhope Street Girls Secondary School; - Stanhope Street Convent Primary School; - Dublin 7 Educate Together National School; - Law Society of Ireland; - St Paul's CBS Brunswick Street North. <p>Retail / Leisure</p> <ul style="list-style-type: none"> - Food Outlets / Restaurants / Pubs / Shops on Prussia Street / Manor Street / Stoneybatter; - Park Shopping Centre Prussia Street; 	<p>Hospitals</p> <ul style="list-style-type: none"> - n/a <p>Education</p> <ul style="list-style-type: none"> - DIT Grangegorman; - King's Inn; - Stanhope Street Girls Secondary School; - Stanhope Street Convent Primary School; - Dublin 7 Educate Together National School. <p>Retail / Leisure</p> <ul style="list-style-type: none"> - Food Outlets / Restaurants / Shops on Prussia Street; - Park Shopping Centre Prussia Street; - St. Michan's Church; - Jameson Distillery Smithfield. <p>Employment</p>	<p>Hospitals</p> <ul style="list-style-type: none"> - n/a <p>Education</p> <ul style="list-style-type: none"> - DIT Grangegorman; - Stanhope Street Girls Secondary School; - Stanhope Street Convent Primary School; - Dublin 7 Educate Together National School; - St Paul's CBS Brunswick Street North. <p>Retail / Leisure</p> <ul style="list-style-type: none"> - Food Outlets / Restaurants / Pubs / Shops on Prussia Street / Manor Street / Stoneybatter; - Jameson Distillery Smithfield; - St. Michan's Church. 	<p>Hospitals</p> <ul style="list-style-type: none"> - n/a <p>Education</p> <ul style="list-style-type: none"> - DIT Grangegorman; - Dublin 7 Educate Together National School; - Stanhope Street Girls Secondary School; - Stanhope Street Convent Primary School; - Law Society of Ireland; - St Paul's CBS Brunswick Street North. <p>Retail / Leisure</p> <ul style="list-style-type: none"> - Food Outlets / Restaurants / Shops on Prussia Street; - Jameson Distillery Smithfield; - Park Shopping Centre Prussia Street; 	<p>Hospitals</p> <ul style="list-style-type: none"> - n/a <p>Education</p> <ul style="list-style-type: none"> - DIT Grangegorman; - Dublin 7 Educate Together National School; - Stanhope Street Girls Secondary School; - Stanhope Street Convent Primary School; - Law Society of Ireland; - St Paul's CBS Brunswick Street North. <p>Retail / Leisure</p> <ul style="list-style-type: none"> - Food Outlets / Restaurants / Shops on Prussia Street; - Park Shopping Centre Prussia Street; - Jameson Distillery 	<p>Hospitals</p> <ul style="list-style-type: none"> - n/a <p>Education</p> <ul style="list-style-type: none"> - DIT Grangegorman; - Stanhope Street Girls Secondary School; - Stanhope Street Convent Primary School; - Dublin 7 Educate Together National School; - Law Society of Ireland; - St Paul's CBS Brunswick Street North. <p>Retail / Leisure</p> <ul style="list-style-type: none"> - Food Outlets / Restaurants / Pubs / Shops on Prussia Street / Manor Street / Stoneybatter; 	<p>Hospitals</p> <ul style="list-style-type: none"> - n/a <p>Education</p> <ul style="list-style-type: none"> - DIT Grangegorman; - Stanhope Street Girls Secondary School; - Stanhope Street Convent Primary School; - Dublin 7 Educate Together National School; - Law Society of Ireland; - St Paul's CBS Brunswick Street North. <p>Retail / Leisure</p> <ul style="list-style-type: none"> - Food Outlets / Restaurants / Pubs / Shops on Prussia Street / Manor Street / Stoneybatter;

		<ul style="list-style-type: none"> - National Museum of Ireland; Decorative Arts & History; - Lighthouse Cinema Smithfield Square; - Maldron Hotel Smithfield; - Generator Hostel Smithfield; - Jameson Distillery Smithfield. <p>Employment</p> <ul style="list-style-type: none"> - City Centre generally; - DIT Grangegorman. 	<ul style="list-style-type: none"> - City Centre generally; - DIT Grangegorman. 	<p>Employment</p> <ul style="list-style-type: none"> - City Centre generally; - DIT Grangegorman. 	<ul style="list-style-type: none"> - Lighthouse Cinema Smithfield Square; - Maldron Hotel Smithfield; - National Museum of Ireland; Decorative Arts & History; - Generator Hostel Smithfield. <p>Employment</p> <ul style="list-style-type: none"> - City Centre generally; - DIT Grangegorman. 	<ul style="list-style-type: none"> - Smithfield; - St. Michan's Church; - Lighthouse Cinema Smithfield Square; - Maldron Hotel Smithfield; - Generator Hostel Smithfield. <p>Employment</p> <ul style="list-style-type: none"> - City Centre generally; - DIT Grangegorman. 	<ul style="list-style-type: none"> - Park Shopping Centre Prussia Street; - National Museum of Ireland; Decorative Arts & History; - Lighthouse Cinema Smithfield Square; - Maldron Hotel Smithfield; - Generator Hostel Smithfield; - Jameson Distillery Smithfield. <p>Employment</p> <ul style="list-style-type: none"> - City Centre generally; - DIT Grangegorman. 	<ul style="list-style-type: none"> - Park Shopping Centre Prussia Street; - National Museum of Ireland; Decorative Arts & History; - Lighthouse Cinema Smithfield Square; - Maldron Hotel Smithfield; - Generator Hostel Smithfield; - Jameson Distillery Smithfield. <p>Employment</p> <ul style="list-style-type: none"> - City Centre generally; - DIT Grangegorman.
	<i>Rank</i>							
	Deprived Geographic Areas	This route option directly serves the Dublin North West Inner City RAPID Areas west of Prussia Street and Blackhall Place.	This route option directly serves the Dublin North West Inner City RAPID Areas west of Prussia Street and east of Church Street.	This route option directly serves all areas within the Dublin North West Inner City RAPID Area.	This route option directly serves the Dublin North West Inner City RAPID Areas west of Prussia Street and Blackhall Place.	This route option directly serves the Dublin North West Inner City RAPID Areas west of Prussia Street and east of Church Street.	This route option directly serves the Dublin North West Inner City RAPID Areas west of Prussia Street and Blackhall Place.	This route option directly serves the Dublin North West Inner City RAPID Areas west of Prussia Street and Blackhall Place.
	<i>Rank</i>							
Safety	Road User Safety	<p>No. of Junctions: 7</p> <p>1 left turn movement and 1 right turn movement inbound;</p> <p>0 turn movements outbound.</p> <p>This route follows heavily trafficked roads along its entire length, with significant volumes of cyclists as per the GDA Cycle Network Plan.</p>	<p>No. of Junctions: 10</p> <p>2 right turn movements and 2 left turn movement inbound;</p> <p>1 right turn movements and 2 left turn movements outbound.</p> <p>Approximately 38% of this route option makes use of lightly trafficked roads.</p>	<p>No. of Junctions: 10</p> <p>2 left turn movements and 2 right turn movements inbound;</p> <p>1 left turn movement and 1 right turn movement outbound.</p> <p>This route follows heavily trafficked roads along its entire length.</p>	<p>No. of Junctions: 7</p> <p>1 left turn movement and 1 right turn movements inbound;</p> <p>2 left turn movements and 2 right turn movements outbound;</p> <p>Approximately 47% of this route option makes use of lightly trafficked roads.</p>	<p>No. of Junctions: 7</p> <p>2 left turn movement and 2 right turn movements inbound;</p> <p>2 right turn movement and 2 left turn movements outbound;</p> <p>Approximately 41% of this route option makes use of lightly trafficked roads.</p>	<p>No. of Junctions: 9</p> <p>2 left turn movement and 2 right turn movement inbound;</p> <p>0 turn movements outbound.</p> <p>This route follows heavily trafficked roads along its entire length, with significant volumes of cyclists as per the GDA Cycle Network Plan.</p>	<p>No. of Junctions: 9</p> <p>2 left turn movement and 2 right turn movement inbound;</p> <p>0 turn movements outbound.</p> <p>This route follows heavily trafficked roads along its entire length, with significant volumes of cyclists as per the GDA Cycle Network Plan.</p>
	<i>Rank</i>							
	Pedestrian Safety	<p>Pedestrian crossings located within 50m of stops and footpaths provided on both sides of the road.</p> <p>There is some increased potential for conflict with pedestrians through Stoneybatter due to the nature as an urban village centre.</p>	<p>Pedestrian crossings located within 50m of stops and footpaths provided on both sides of the road.</p> <p>There is significant increased potential for conflict with pedestrians through the Grangegorman Campus due to the open nature of the campus.</p>	<p>Pedestrian crossings located within 50m of stops and footpaths provided on both sides of the road.</p> <p>There is some increased potential for conflict with pedestrians through Stoneybatter due to the nature as an urban village centre.</p>	<p>Pedestrian crossings located within 50m of stops and footpaths provided on both sides of the road.</p> <p>There is significant increased potential for conflict with pedestrians through the Grangegorman Campus due to the open nature of the campus.</p>	<p>Pedestrian crossings located within 50m of stops and footpaths provided on both sides of the road.</p> <p>There is significant increased potential for conflict with pedestrians through the Grangegorman Campus due to the open nature of the campus.</p>	<p>Pedestrian crossings located within 50m of stops and footpaths provided on both sides of the road.</p> <p>There is some increased potential for conflict with pedestrians through Stoneybatter due to the nature as an urban village centre.</p>	<p>Pedestrian crossings located within 50m of stops and footpaths provided on both sides of the road.</p> <p>There is some increased potential for conflict with pedestrians through Stoneybatter due to the nature as an urban village centre.</p>
<i>Rank</i>								
Physical Activity	Physical Activity	The CBC will pass through various residential and employment/retail / leisure areas that will encourage some modal change and therefore increased physical activity by walking between Bus stops and the origin / destination.	The CBC will pass through various residential and employment/retail / leisure areas that will encourage some modal change and therefore increased physical activity by walking between Bus stops and the origin / destination.	The CBC will pass through various residential and employment/retail / leisure areas that will encourage some modal change and therefore increased physical activity by walking between Bus stops and the origin / destination.	The CBC will pass through various residential and employment/retail / leisure areas that will encourage some modal change and therefore increased physical activity by walking between Bus stops and the origin / destination.	The CBC will pass through various residential and employment/retail / leisure areas that will encourage some modal change and therefore increased physical activity by walking between Bus stops and the origin / destination.	The CBC will pass through various residential and employment/retail / leisure areas that will encourage some modal change and therefore increased physical activity by walking between Bus stops and the origin / destination.	The CBC will pass through various residential and employment/retail / leisure areas that will encourage some modal change and therefore increased physical activity by walking between Bus stops and the origin / destination.
	<i>Rank</i>							

Environment	Archaeology and Cultural Heritage	Approximately 60% of this route is located within the zone of archaeological potential that surrounds the historic core of Dublin City (DU018-020). In addition, there are three recorded sub-constraints located along the path or immediately adjacent to the route option.	Approximately 50% of this route is located within the zone of archaeological potential that surrounds the historic core of Dublin City (DU018-020). In addition, there are 6 recorded sub-constraints located along the path or immediately adjacent to the route option. Part of the route option will run through greenfield associated with the former hospital at Grangegorman, which increases the potential for archaeological remains to be present beneath the ground level with no surface expression.	Approximately 70% of this route is located within the zone of archaeological potential that surrounds the historic core of Dublin City (DU018-020). In addition, there are 8 recorded sub-constraints located along the path or immediately adjacent to the route option.	Approximately 40% of this route is located within the zone of archaeological potential that surrounds the historic core of Dublin City (DU018-020). In addition, there are 2 recorded sub-constraints located along the path or immediately adjacent to the route option. Part of the route option will run through greenfield associated with the former hospital at Grangegorman, which increases the potential for archaeological remains to be present beneath the ground level with no surface expression.	Approximately 40% of this route is located within the zone of archaeological potential that surrounds the historic core of Dublin City (DU018-020). In addition, there are 9 recorded sub-constraints located along the path or immediately adjacent to the route option. Part of the route option will run through greenfield associated with the former hospital at Grangegorman, which increases the potential for archaeological remains to be present beneath the ground level with no surface expression.	Approximately 60% of this route is located within the zone of archaeological potential that surrounds the historic core of Dublin City (DU018-020). In addition, there are three recorded sub-constraints located along the path or immediately adjacent to the route option.	Approximately 60% of this route is located within the zone of archaeological potential that surrounds the historic core of Dublin City (DU018-020). In addition, there are three recorded sub-constraints located along the path or immediately adjacent to the route option.
	Rank							
	Architectural Heritage	The Dublin City Development Plan 2016-2022 defines a number of streets where there is historic paving or kerb stones and these would be vulnerable to any works such as the CBC. This route would pass down at least one of these defined streets at some point along its route.	The Dublin City Development Plan 2016-2022 defines a number of streets where there is historic paving or kerb stones and these would be vulnerable to any works such as the CBC. This route would pass down at least one of these defined streets at some point along its route.	The Dublin City Development Plan 2016-2022 defines a number of streets where there is historic paving or kerb stones and these would be vulnerable to any works such as the CBC. This route would pass down at least one of these defined streets at some point along its route.	The Dublin City Development Plan 2016-2022 defines a number of streets where there is historic paving or kerb stones and these would be vulnerable to any works such as the CBC. This route would pass down at least one of these defined streets at some point along its route.	The Dublin City Development Plan 2016-2022 defines a number of streets where there is historic paving or kerb stones and these would be vulnerable to any works such as the CBC. This route would pass down at least one of these defined streets at some point along its route.	The Dublin City Development Plan 2016-2022 defines a number of streets where there is historic paving or kerb stones and these would be vulnerable to any works such as the CBC. This route would pass down at least one of these defined streets at some point along its route.	The Dublin City Development Plan 2016-2022 defines a number of streets where there is historic paving or kerb stones and these would be vulnerable to any works such as the CBC. This route would pass down at least one of these defined streets at some point along its route.
	Rank							
	Flora & Fauna	Given the developed urban nature of this route option, overall impacts on flora / fauna from this route option are assessed as neutral.	Given the developed urban nature of this route option, overall impacts on flora / fauna from this route option are assessed as neutral.	Given the developed urban nature of this route option, overall impacts on flora / fauna from this route option are assessed as neutral.	Given the developed urban nature of this route option, overall impacts on flora / fauna from this route option are assessed as neutral.	Given the developed urban nature of this route option, overall impacts on flora / fauna from this route option are assessed as neutral.	Given the developed urban nature of this route option, overall impacts on flora / fauna from this route option are assessed as neutral.	Given the developed urban nature of this route option, overall impacts on flora / fauna from this route option are assessed as neutral.
	Rank							
	Soils and Geology	Minimal potential for impacts to soils and geology however the presence of a number of historic industries along this route option could give rise to potential residual contamination.	Minimal potential for impacts to soils and geology however the presence of a number of historic industries along this route option could give rise to potential residual contamination.	Minimal potential for impacts to soils and geology however the presence of a number of historic industries along this route option could give rise to potential residual contamination.	Minimal potential for impacts to soils and geology however the presence of a number of historic industries along this route option could give rise to potential residual contamination.	Minimal potential for impacts to soils and geology however the presence of a number of historic industries along this route option could give rise to potential residual contamination.	Minimal potential for impacts to soils and geology however the presence of a number of historic industries along this route option could give rise to potential residual contamination.	Minimal potential for impacts to soils and geology however the presence of a number of historic industries along this route option could give rise to potential residual contamination.
	Rank							
	Hydrology	This criterion is assessed as neutral.	This criterion is assessed as neutral.	This criterion is assessed as neutral.	This criterion is assessed as neutral.	This criterion is assessed as neutral.	This criterion is assessed as neutral.	This criterion is assessed as neutral.
	Rank							
Landscape and Visual	This route option passes through Stoneybatter, an original Dublin inner-city urban village. The town is lined with historic Georgian and red bricked buildings. There are several existing bus routes traversing through Stoneybatter that it is considered a CBC through the village will have a neutral impact on the Landscape and Visual	This route options avoids travelling through Stoneybatter and instead routes through the Grangegorman Campus and Grangegorman Road Lower which is currently being redeveloped in its entirety as part of the Grangegorman Masterplan. It is considered that the construction of a CBC and rerouting all bus services	This route option passes through Stoneybatter, an original Dublin inner-city urban village. The town is lined with historic Georgian and red bricked buildings. There are several existing bus routes traversing through Stoneybatter that it is considered a CBC through the village will have a neutral	This route options avoids travelling through Stoneybatter and instead routes through the Grangegorman Campus and Grangegorman Road Lower which is currently being redeveloped in its entirety as part of the Grangegorman Masterplan. It is considered that the construction of a CBC and rerouting all bus services	This route options avoids travelling through Stoneybatter and instead routes through the Grangegorman Campus and Grangegorman Road Lower which is currently being redeveloped in its entirety as part of the Grangegorman Masterplan. It is considered that the construction of a	This route option passes through Stoneybatter, an original Dublin inner-city urban village. The town is lined with historic Georgian and red bricked buildings. There are several existing bus routes traversing through Stoneybatter that it is considered a CBC through the village will have a neutral	This route option passes through Stoneybatter, an original Dublin inner-city urban village. The town is lined with historic Georgian and red bricked buildings. There are several existing bus routes traversing through Stoneybatter that it is considered a CBC through the village will have a neutral	

		through Stoneybatter.	through the campus will have a slightly negative impact on the landscape and visual along the route.	impact on the Landscape and Visual through Stoneybatter..	through the campus will have a slightly negative impact on the landscape and visual along the route.	CBC and rerouting all bus services through the campus will have a slightly negative impact on the landscape and visual along the route.	impact on the Landscape and Visual through Stoneybatter.	impact on the Landscape and Visual through Stoneybatter.
	<i>Rank</i>							
	Air Quality	The proposed bus corridors in this route option have the potential to minimise emissions by allowing buses to move more freely. There are some sensitive receptors within 200m of the route. It is considered that this route option will have a neutral to slight negative air quality impact in both the construction and operation phase.	This route option would require road widening and hence there is increased potential for dust impacts during construction. There are some sensitive receptors within 200m of the route. It is considered that this route option will have a neutral to slight negative air quality impact in both the construction and operational phases.	The proposed bus corridors in this route option have the potential to minimise emissions by allowing buses to move more freely. There are some sensitive receptors within 200m of the route. It is considered that this route option will have a neutral to slight negative air quality impact in both the construction and operation phase.	This route option would require road widening and hence there is increased potential for dust impacts during construction. There are some sensitive receptors within 200m of the route. It is considered that this route option will have a neutral to slight negative air quality impact in both the construction and operational phases.	This route option would require road widening and hence there is increased potential for dust impacts during construction. There are some sensitive receptors within 200m of the route. It is considered that this route option will have a neutral to slight negative air quality impact in both the construction and operational phases.	The proposed bus corridors in this route option have the potential to minimise emissions by allowing buses to move more freely. There are some sensitive receptors within 200m of the route. It is considered that this route option will have a neutral to slight negative air quality impact in both the construction and operation phase.	The proposed bus corridors in this route option have the potential to minimise emissions by allowing buses to move more freely. There are some sensitive receptors within 200m of the route. It is considered that this route option will have a neutral to slight negative air quality impact in both the construction and operation phase.
	<i>Rank</i>							
	Noise & Vibration	It is possible that significant variations could occur due to redistribution of traffic from one route to another. This has the potential to impact on the local noise environment.	It is possible that significant variations could occur due to redistribution of traffic from one route to another. This has the potential to impact on the local noise environment.	It is possible that significant variations could occur due to redistribution of traffic from one route to another. This has the potential to impact on the local noise environment.	It is possible that significant variations could occur due to redistribution of traffic from one route to another. This has the potential to impact on the local noise environment.	It is possible that significant variations could occur due to redistribution of traffic from one route to another. This has the potential to impact on the local noise environment.	It is possible that significant variations could occur due to redistribution of traffic from one route to another. This has the potential to impact on the local noise environment.	It is possible that significant variations could occur due to redistribution of traffic from one route to another. This has the potential to impact on the local noise environment.
	<i>Rank</i>							
	Land Use Character	This route option will not require land-take, severance or reduction of viability of the existing land-use along its proposed alignment. It is considered that this route option will have a neutral impact on the Land Use Character.	This route option will require land-take to create a route through the Grangegorman Campus via Prussia Street. It will also require widening the internal service road through the campus and severance of the proposed Plaza area on Grangegorman Road Lower. All existing bus services through Stoneybatter will also be diverted through the Grangegorman Campus thereby significantly increasing the vehicular volumes above that originally intended for the internal service road. It is considered that this route will have a slightly negative impact on the Land-Use Character.	This route option will not require land-take, severance or reduction of viability of the existing land-use along its proposed alignment. It is considered that this route option will have a neutral impact on the Land Use Character.	This route option will require land-take to create a route through the Grangegorman Campus via Prussia Street. It will also require widening the internal service road through the campus and severance of the proposed Plaza area on Grangegorman Road Lower. All existing bus services through Stoneybatter will also be diverted through the Grangegorman Campus thereby significantly increasing the vehicular volumes above that originally intended for the internal service road. It is considered that this route will have a slightly negative impact on the Land-Use Character.	This route option will require land-take to create a route through the Grangegorman Campus via Prussia Street. It will also require widening the internal service road through the campus and severance of the proposed Plaza area on Grangegorman Road Lower. All existing bus services through Stoneybatter will also be diverted through the Grangegorman Campus thereby significantly increasing the vehicular volumes above that originally intended for the internal service road. It is considered that this route will have a slightly negative impact on the Land-Use Character.	This route option will not require land-take, severance or reduction of viability of the existing land-use along its proposed alignment. It is considered that this route option will have a neutral impact on the Land Use Character.	This route option will not require land-take, severance or reduction of viability of the existing land-use along its proposed alignment. It is considered that this route option will have a neutral impact on the Land Use Character.
	<i>Rank</i>							

Appendix B – Data Collection

1. Study area visit

Each of the route sections were visited / driven and audited to identify any constraints which may not have been evident from maps and drawings. The site visits enabled a comprehensive evaluation of the route options in terms of their capacity to accommodate of a core bus corridor.

2. Land Use and Planning

The land use assessment was carried out using GIS and examined private and public land along the different route options. This information was used for developing cost estimates for each of the route options, based on the area and nature (public or private) of the land acquisition required. The land use assessment results are presented in the MCA tables in Appendix A.

3. Existing Bus Lanes

A map indicating the existing bus lanes throughout the CBC study area was produced to highlight sections of the corridor already capable of accommodating segregated facilities. Blue routes indicate inbound bus lanes while red routes indicated outbound bus lanes.

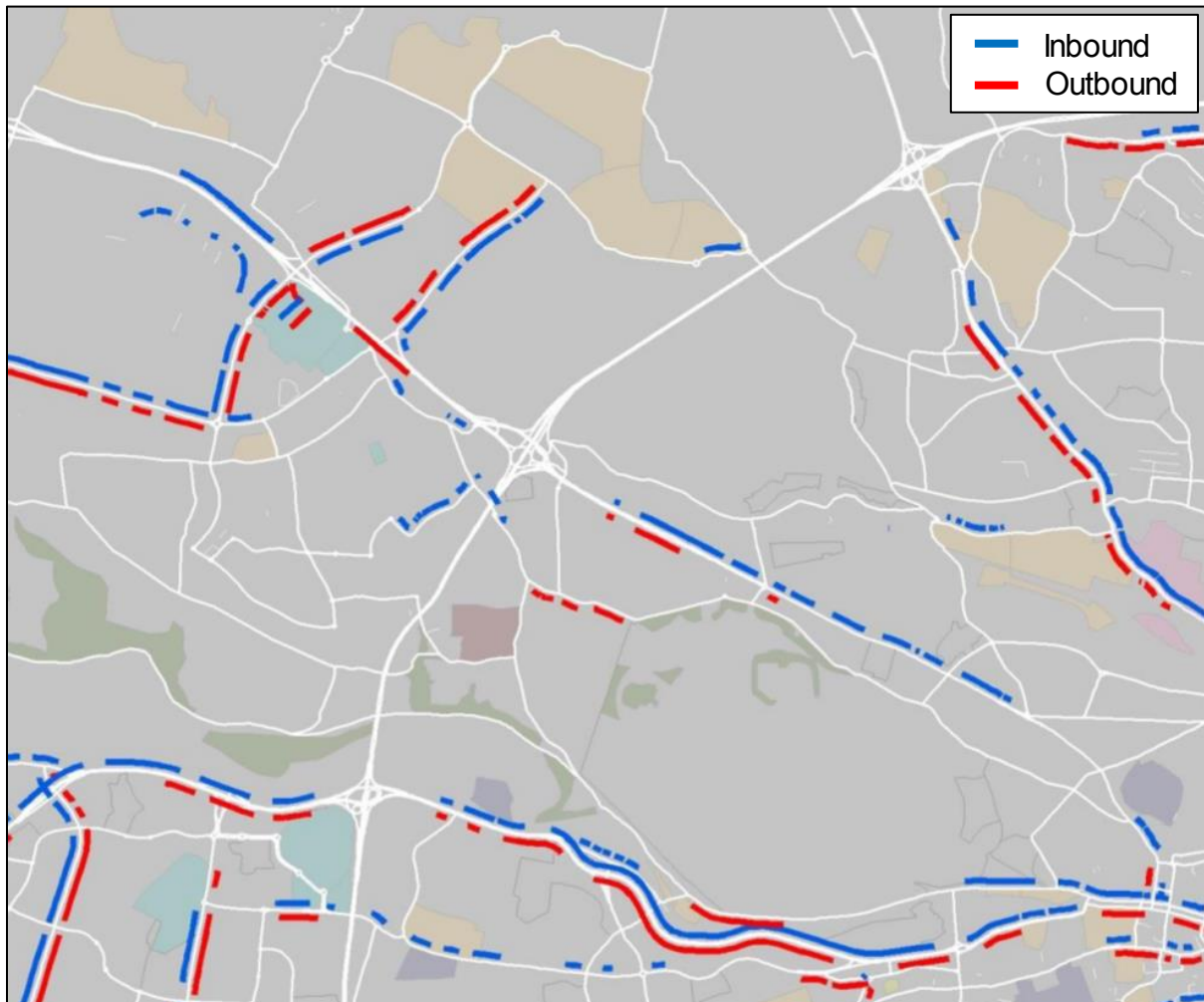


Figure 1: Existing bus lanes within the study area (Source: NTA Core Bus Network Report - Figure 4.4. Existing Bus Infrastructure – North West Dublin)

4. Bus Journey Times

The bus travel times for each scheme option were estimated based on a number of criteria, including;

- Length of segregated bus lane;
- Length of shared bus / traffic lane;
- Number of signalised junctions;
- Number of pedestrian crossings; and
- Number of bus stops.

Due to the large number of route options and calculations, the results of the bus journey time estimates are presented in Appendix C.

5. Road Collision History

The Road Safety Authority database of personal injury accidents was examined to establish if there are any existing safety issues along the route options that were not evident from the site visits. The database provides accident records for the period 2005 to 2013; in terms of location, year, road user type involved (pedestrian, car, cyclist, motorcyclist, bus etc.), circumstances and severity of collision (minor, serious or fatal). The following bus collision history maps indicate the location of incidents along the route options identified within each Study Area Section.

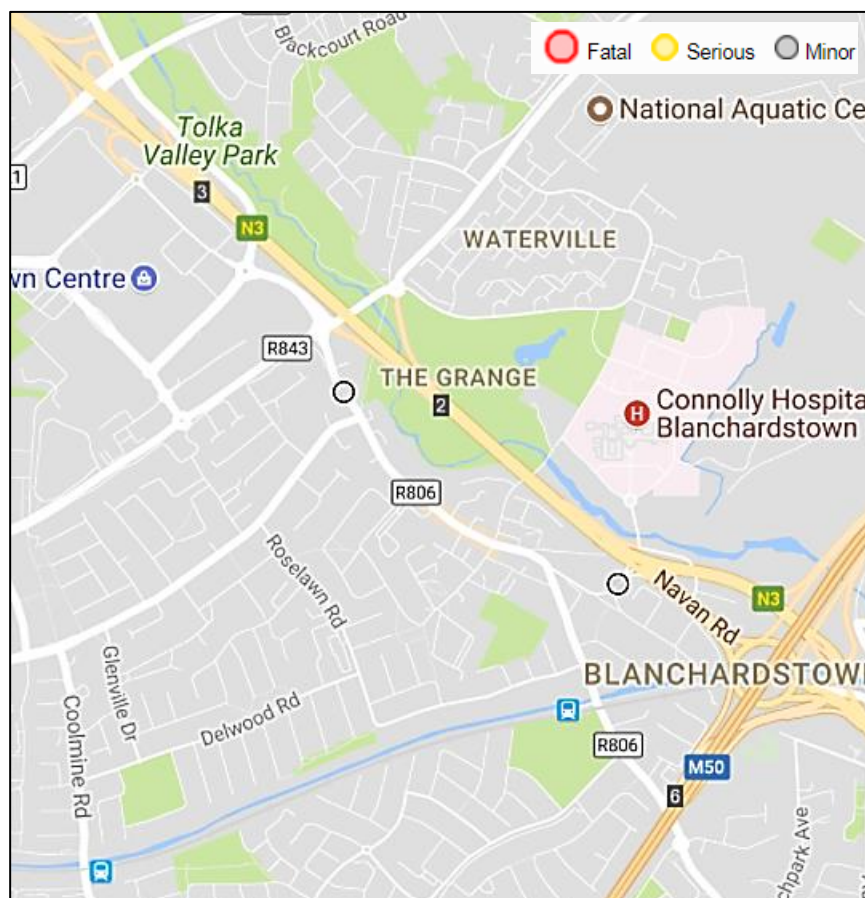


Figure 2: Bus collision history in Study Area Section 1

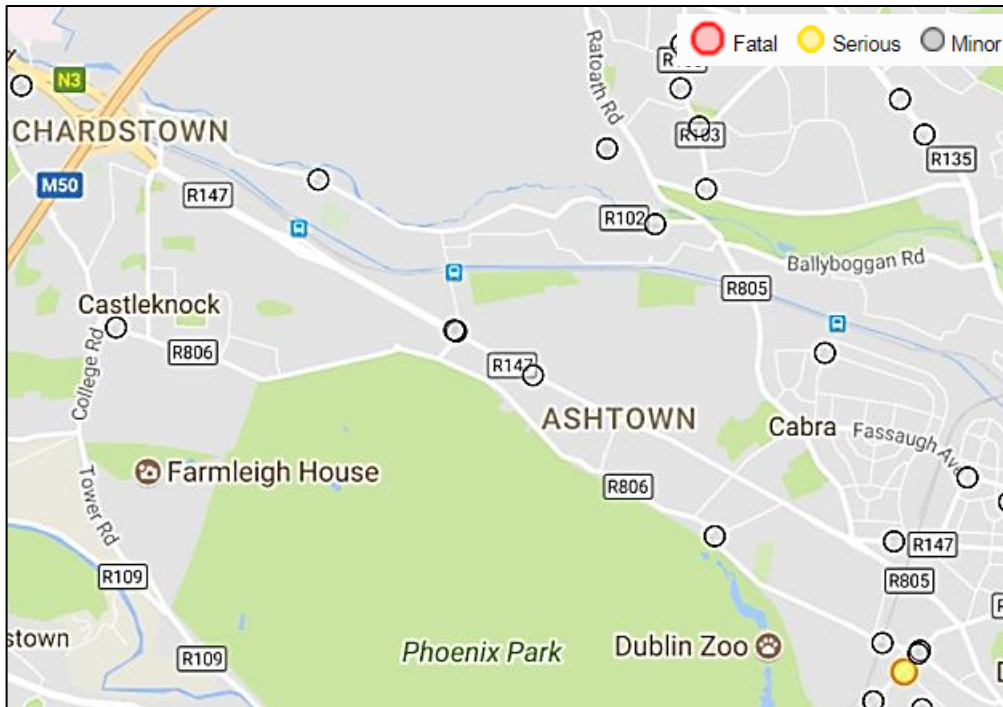


Figure 3: Bus collision history in Study Area Section 2

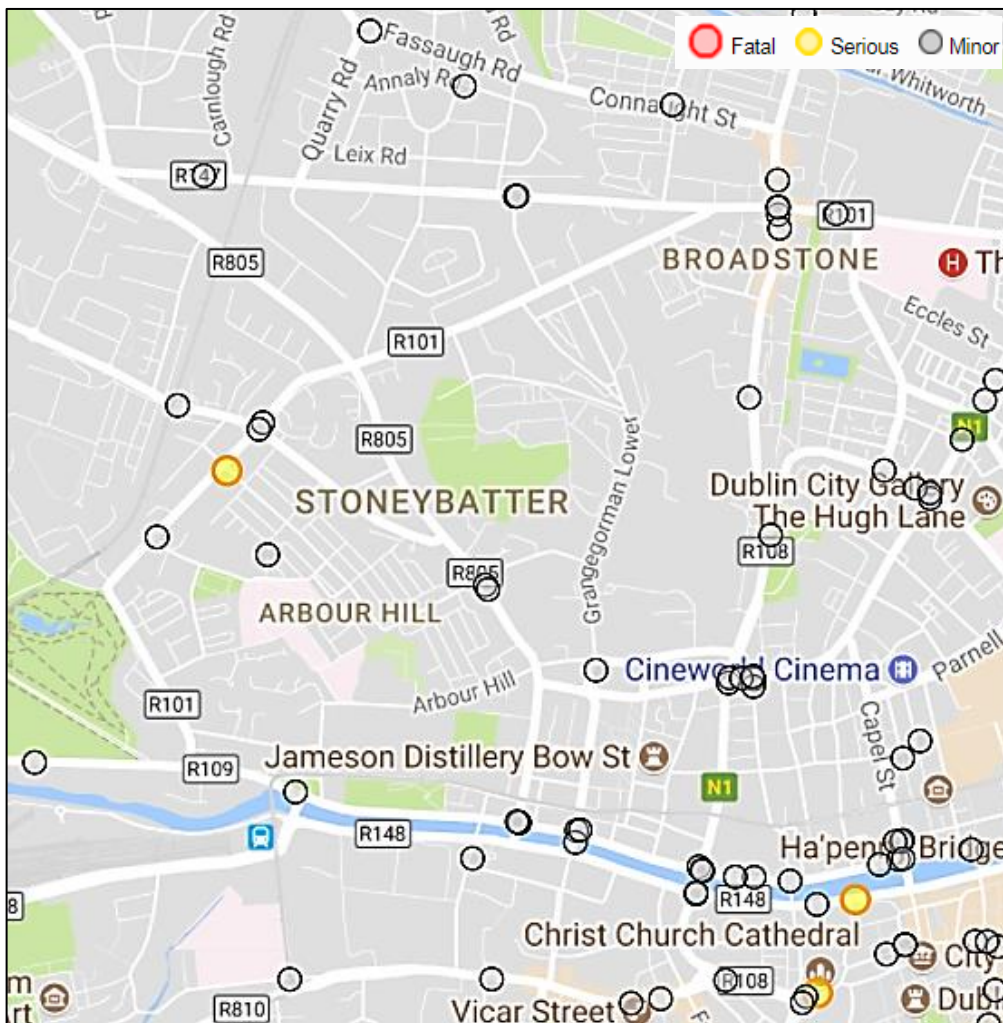


Figure 4: Bus collision history in Study Area Section 3

6. Tree surveys

A visual inspection of existing trees along each route option was carried out to identify tree locations and potential route option impacts. The results of these site observations are discussed within the Mutli Criteria Analysis in Appendix A. Some of the routes options were also surveyed by Dr Phillip Blackstock. Dr. Blackstock's tree survey drawings are contained in a separate stand alone document.

7. Architectural and Archaeological information

Irish Archaeological Consultancy (IAC) and Roughan & O' Donovan (ROD) provided an environmental assessment of the different route options under the following criteria:

- Archaeology and Cultural Heritage
- Architectural Heritage
- Flora & Fauna
- Soils and Geology
- Hydrology
- Landscape and Visual
- Air Quality
- Noise & Vibration
- Land Use Character

The architectural and archaeological assessment results are presented in the MCA tables in Appendix A

8. Route Audit

An assessment along the emerging preferred route option was carried out to identify existing facilities and constraints. The results of this assessment are contained in a report in Appendix D.

9. Parking survey

A parking survey study was carried out to identify the parking conditions in the existing road network. Each route was assessed under the following criteria:

- *Formal Parking*: On-street parking in which marked spaces has been provided. These are spaces in which the Local Authority charges an hourly rate to use.
- *Informal Parking*: On-street parking in which spaces may or may not be marked and in which the Local Authority does not charge for use.
- *Adjacent Parking*: Parking which is accessible to the general public and is located in close proximity to the street. These are spaces in which the Local Authority charges an hourly rate to use.

The results of the parking survey assessment are contained in a report in Appendix E.

10. Cost estimates

A breakdown of the cost estimation process is presented in Appendix F.

Appendix C – Bus Journey Times

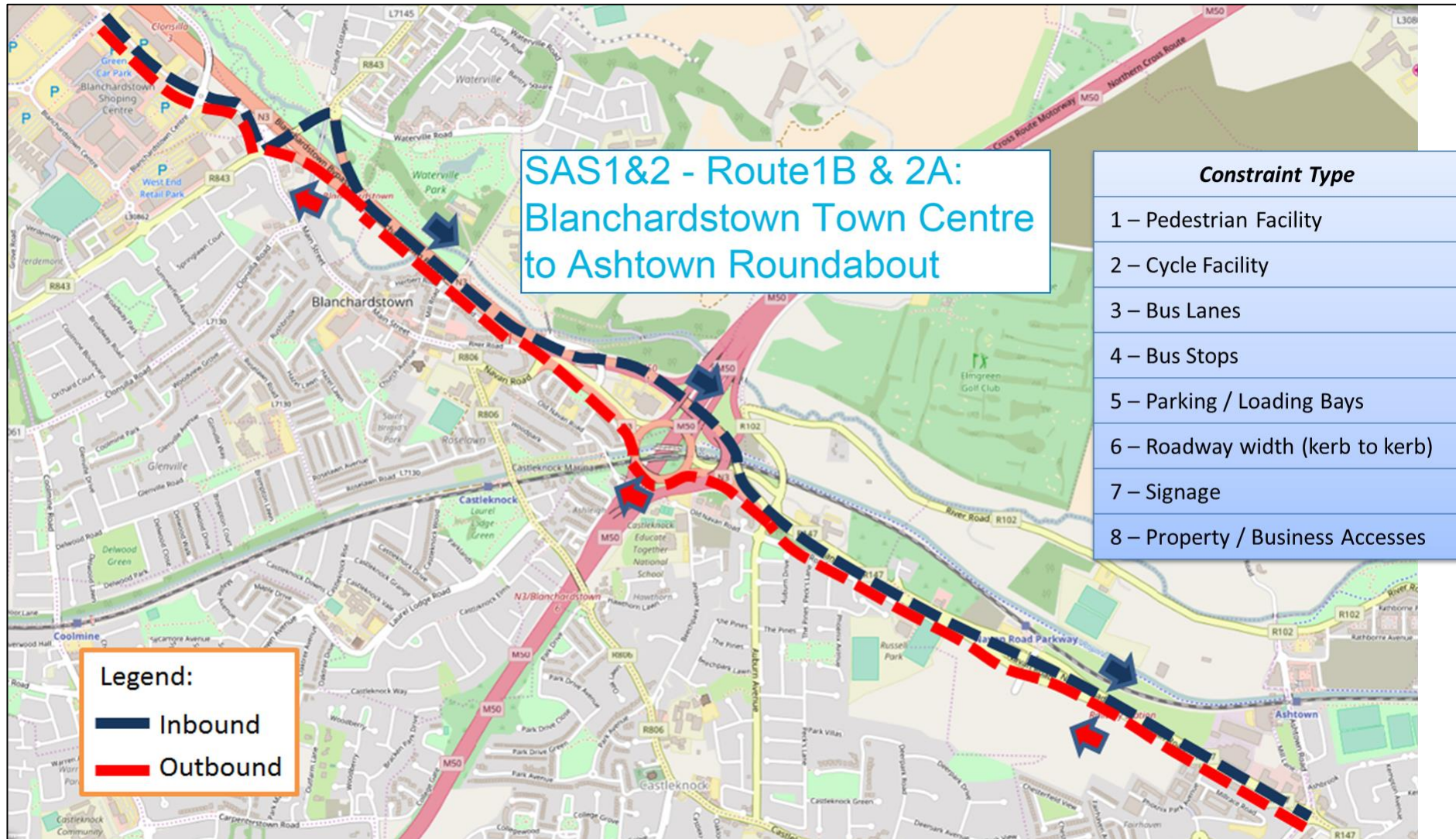
1. SAS 1 Journey Time

Route 1			Scheme Options					
			1A1 and 1A2 inbound	1A1 and 1A2 outbound	1B1 and 1B2 inbound	1B1 and 1B2 outbound	1H1 and 1H2 inbound	1H1 and 1H2 outbound
	KM per Hour	Average Delay (Minute)	Length (KM)/Nr Stops or Junctions	Length (KM)/Nr Stops or Junctions	Length (KM)/Nr Stops or Junctions	Length (KM)/Nr Stops or Junctions	Length (KM)/Nr Stops or Junctions	Length (KM)/Nr Stops or Junctions
Total Length			3.50	3.06	2.55	2.35	2.50	2.50
Fully Segregated Bus Lane (50kph top operational speed, travelling at average speed of 30kph)	30		3.50	3.06	2.55	2.35	2.50	2.50
Shared Bus/Cycle Lane	10							
Signalised Junction (Dwell time of 15 seconds per stop on average)		0.25	6	4	6	5	9	9
Pedestrian Crossing (15 second average)		0.25	0	0	0	0	1	1
Bus Stop Dwell Time (15 seconds average)		0.25	2	3	2	3	4	3
Scheme Option Journey Time (Nearest Minutes)			9	8	7	7	9	8

2. SAS 2 Journey Time

Route 2A			Scheme Options		
			2A1 and 2A3 inbound / outbound	2A2 inbound	2A2 outbound
	<i>KM per Hour</i>	<i>Average Delay (Minute)</i>	<i>Length (KM)/Nr Stops or Junctions</i>	<i>Length (KM)/Nr Stops or Junctions</i>	<i>Length (KM)/Nr Stops or Junctions</i>
Total Length			4.50	4.50	4.50
Fully Segregated Bus Lane (50kph top operational speed, travelling at average speed of 30kph)	30		4.50	4.25	3.88
Shared Bus/Cycle Lane	10			0.25	0.62
Signalised Junction (Dwell time of 15 seconds per stop on average)		0.25	9	9	9
Pedestrian Crossing (15 second average)		0.25	2	2	2
Bus Stop Dwell Time (15 seconds average)		0.25	9	9	9
<i>Scheme Option Journey Time (Nearest Minutes)</i>			14	15	17

Appendix D – Route Audit





Crown Plaza RA- Navan Road

		Ch.5690	Ch.5930	Ch.6170	Ch.6345	Ch.6550	Ch.6700
Section 2: West/Eastbound	1	Footpath facilities				No footpath	
	2	No cycle lane					
	3	No Bus lane					Bus Lane
	4	No Bus Stops	Bus stop	No Bus Stops	Bus stops	No Bus Stops	
	5	No designated parking					
	6	+3m wide carriageway including pedestrian crossing at various locations			+3m wide carriageway		
	7	Some signage on approach to roundabouts and at entrances to car parks					
	8	Accesses to DFS Blanchardstown at various locations			No commercial or residential accesses		



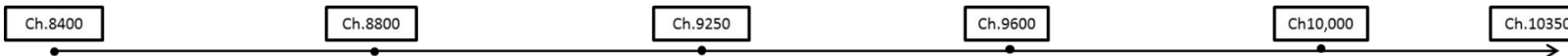
Crown Plaza RA– Navan Road



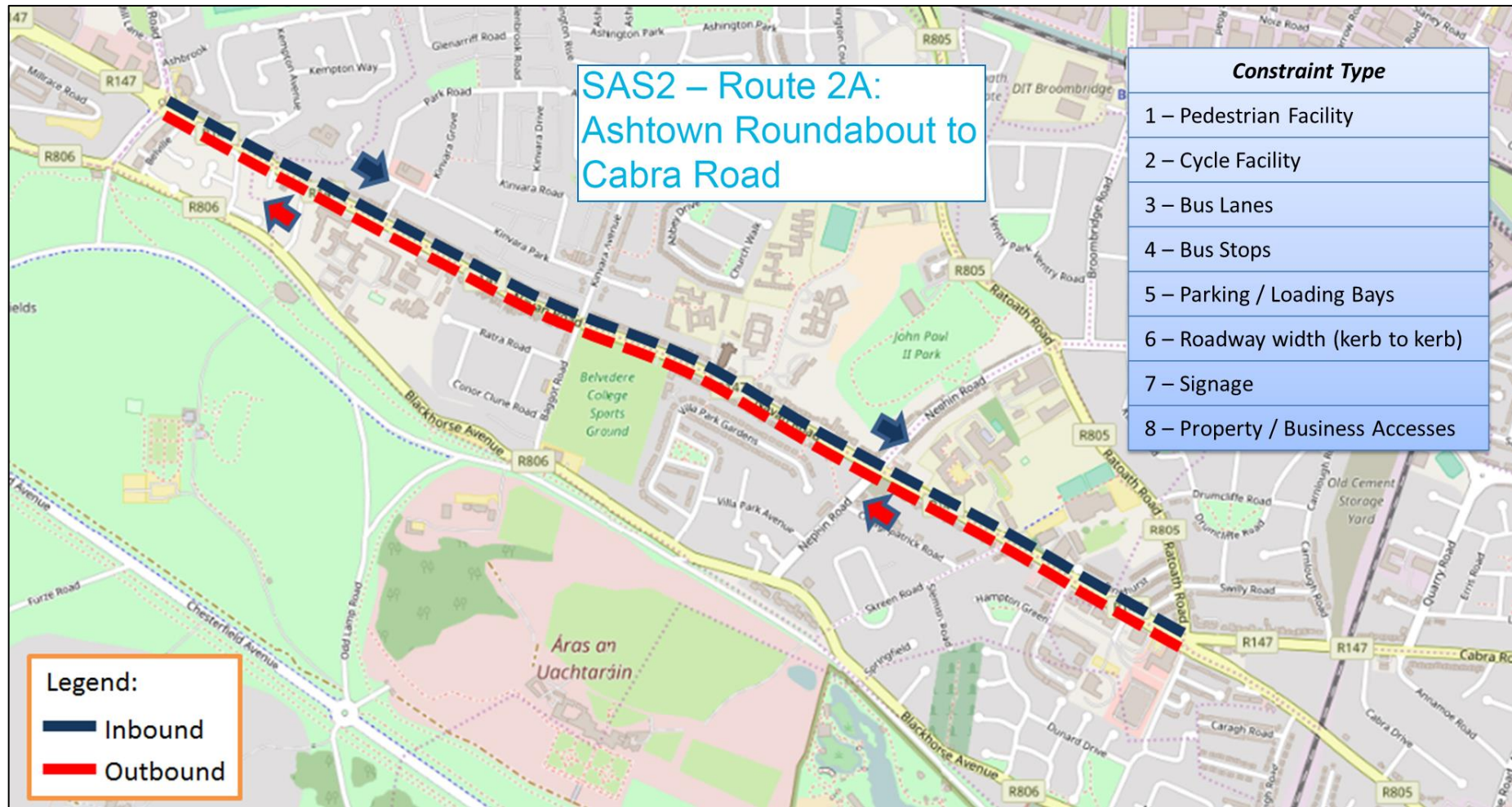
Section 2: West/Eastbound	1	Footpath facilities				No footpath	
	2	No cycle lane					
	3	No Bus lane					Bus Lane
	4	No Bus Stops	Bus stop	No Bus Stops	Bus stops	No Bus Stops	
	5	No designated parking					
	6	+3m wide carriageway including pedestrian crossing at various locations			+3m wide carriageway		
	7	Some signage on approach to roundabouts and at entrances to car parks					
	8	Accesses to DFS Blanchardstown at various locations			No commercial or residential accesses		



Dunsink Lane – Halfway House



Section 2: West/Eastbound	1	Footpath facilities along majority of route apart from 500m section along westbound carriageway approaching Dunsink Lane and through road at Navan Parkway junction						
	2	No Cycle lane facilities apart from provision of 2-way facilities heading westbound at Navan Parkway junction						
	3	Bus lane						
	4	No Bus Stops	Bus Stop	No Bus Stops	Bus Stops		Bus Stops	
	5	No designated parking along this section of route						
	6	+3m wide carriageway						
	7	Main signage at several locations along this section. Overhead gantries at various locations along westbound carriageway						
	8	Commercial accesses at various locations along this section						





Ashtown RA – Kinvara Avenue

Ch.10350

Ch.10550

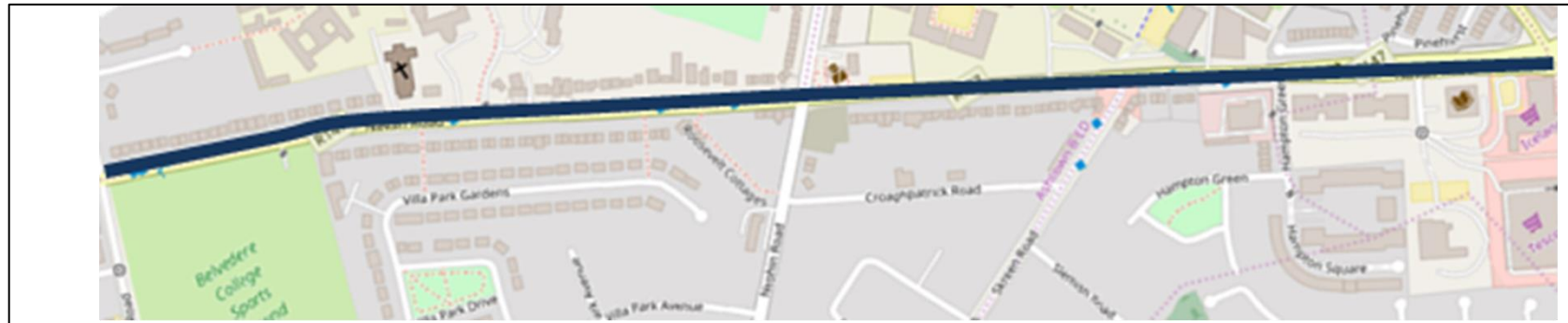
Ch.10750

Ch.10950

Ch.11200

Ch.11400

Section 2: West/Eastbound	1	Footpath facilities westbound and east bound. Trees planted at various locations		
	2	Segregated cycle lane on westbound approach to Halfway house junction . On-road cycle facilities both directions from Kempton Avenue to Kinvara Avenue		
	3	Bus lane in Eastbound lane from Ashtown RA to Kinvara Avenue (apart from approaches to junctions with Ashtown Grove and Kinvara Avenue)		
	4	No Bus Stops	Bus stops	No Bus Stops
	5	No designated parking		
	6	+3m wide carriageway including pedestrian crossing at various locations		
	7	Some signage at entrances to school and at various locations		
	8	Accesses to Residential estates at various locations along this route		



Kinvara Avenue – Cabra Road



Section 2: West/Eastbound	1	Footpath facilities in both directions			
	2	On road Cycle lane facilities for majority of section			
	3	Inbound Bus Lane along majority of section. No Outbound bus lane			
	4	No Bus Stops	Bus Stop	No Bus Stops	Bus Stop
	5	No designated parking along this section of route			
	6	+3m wide carriageway			
	7	Main Signage and overhead gantries at several locations along this section of route			
	8	No accesses			

Appendix E – Parking Survey







1. Introduction

AECOM-ROD has been tasked by the National Transport Authority (NTA) to prepare the necessary designs plus planning approval for the Blanchardstown to UCD CBC scheme. This report shall seek to quantify the parking circumstances in the existing road network along the scheme. Parking has been categorised as follows:

- **Formal Parking:** On-street parking in which marked spaces has been provided. These are spaces in which the Local Authority charges an hourly rate to use.
- **Informal Parking:** On-street parking in which spaces may or may not be marked and in which the Local Authority does not charge for use.
- **Adjacent Parking:** Parking which is accessible to the general public and is located in close proximity to the street. These are spaces in which the Local Authority charges an hourly rate to use.
- **Taxi Rank:** On-street parking for taxi cars only.
- **Loading Bay:** On-street bay for loading vehicles only.

2. Legend

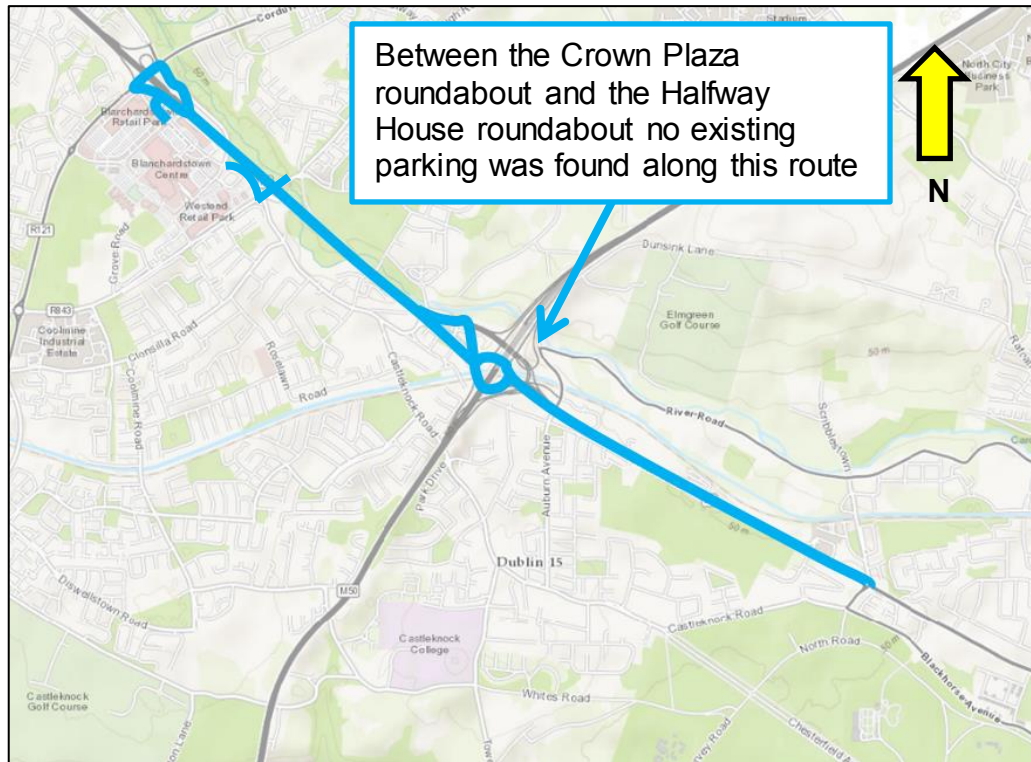
Parking facilities along the scheme are identified using the following colours:

Colour Code	Facility
	No Parking
	Formal Parking
	Informal Parking
	Adjacent Parking
	Taxi Rank
	Loading bay

3. Exclusions and Assumptions

The parking and loading assessment for Sections 4 and 5 will be complete following route selection.

4. SAS1&2 - Route 1A, 1B & 2A: Blanchardstown Town Centre/Crown Plaza Roundabout to Ashtown Roundabout



Blanchardstown Town Centre/Crown Plaza roundabout to upper access/egress from N3 on/off ramp

- No Parking

Upper access/egress from N3 on/off ramp to R121 on ramp taper end

- No Parking

R121 on ramp taper end to Connolly Hospital off-ramp taper

- No Parking

Connolly Hospital off-ramp taper to M50 Roundabout Interchange

- No Parking

M50 Roundabout Interchange

- No Parking

M50 Roundabout Interchange to R102 Interchange

- No Parking

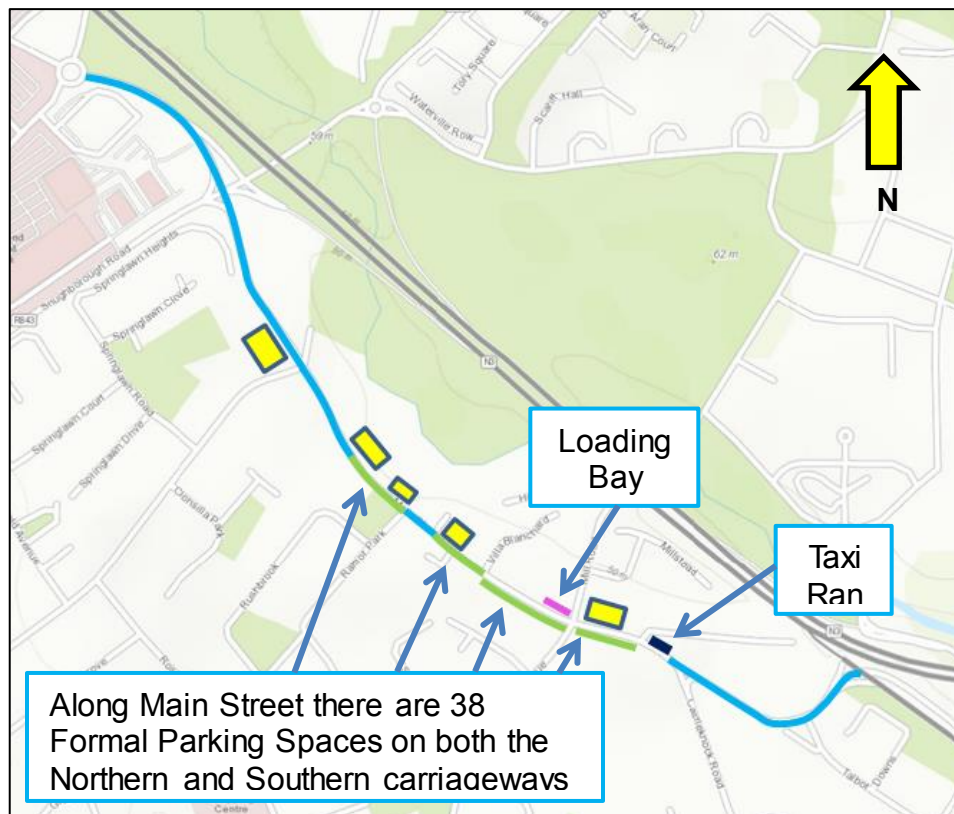
L3020

- No Parking

Snugborough overpass

- No Parking

5. SAS1 – Route 1H: Blanchardstown Town Centre to Dunsink Lane/Auburn Avenue junction



The survey has shown parking facilities at various locations along the length of Main Street and the Navan Road. There are formal, adjacent, taxi rank parking spaces and loading bays as shown on the Figure above. The parking facilities are listed as follows:

L3020/Main Street to Clonsilla Road

- No Formal Parking
- 15 adjacent spaces located at "The Garden House"

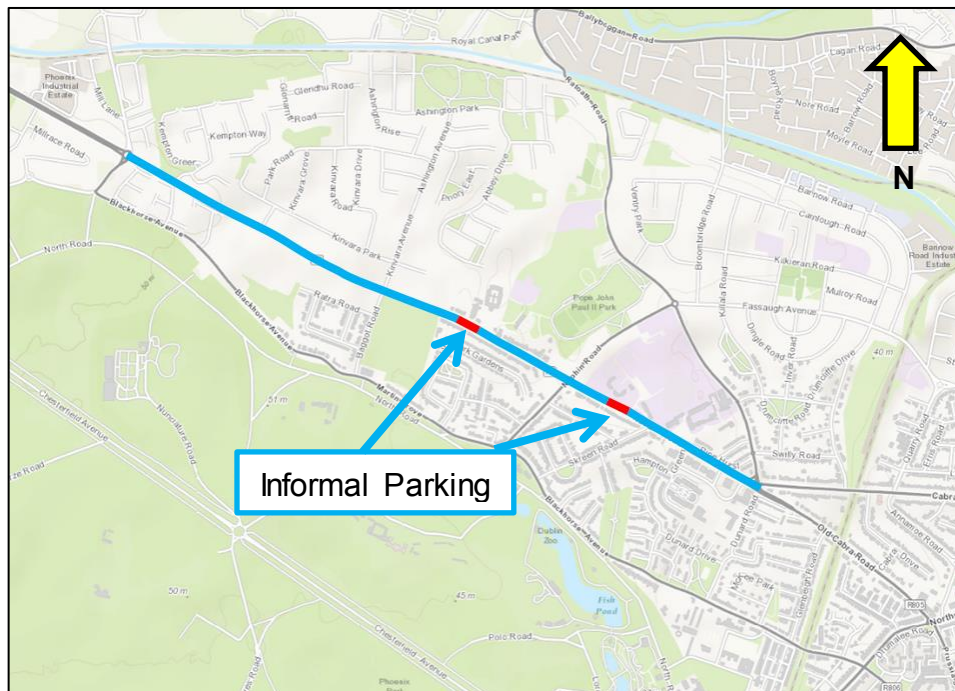
Main Street to Castleknock Road junction

- 38 Formal Parking Spaces (Including 3 Disabled Parking Spaces)
- No Informal Parking Spaces
- 43 Adjacent Spaces at several locations
- 2 Loading Bay spaces
- 2 Taxi Rank Spaces

Navan road from Castleknock Road junction to the N3

- No Parking

6. SAS2 – Route 2A: Ashtown Roundabout to Cabra Road



Ashtown Road Roundabout to Kinvara Avenue/Baggot Junction

- No Parking

Kinvara Avenue/Baggot Junction to Cabra Road

- No Formal Parking
- 4 Informal Parking spaces behind footpath outside “The Brophy” Medical Practise on the North side of the Navan Road.
- 5 Informal Parking Spaces behind footpath outside Our Lady Help of Christians Church on the North side of the Navan Road
- 9 Informal Parking Spaces from 106 Navan Rd to 90 Navan Rd. 80m total length of Informal Parking. This distance is inclusive of 8 car entrances to adjacent properties.
- No Taxi Ranks
- No Loading Bays

Appendix F – Cost Estimate

SAS 1 Scheme Option 1A1					
Route Sections	Route Section Cost Rates (EUR / km)			Route Section Cost	
	CAL 1: Minor	CAL 2: Moderate	CAL 3: Major		
	€ 650,000	€ 1,300,000	€ 2,500,000		
1	Section Length (km)	0.670		€ 435,500	
2			0.110	€ 143,000	
3			0.050	€ 65,000	
4				0.100	€ 250,000
5				0.175	€ 437,500
6				1.525	€ 3,812,500
7			0.045		€ 58,500
8		0.090			€ 58,500
9				1.565	€ 3,912,500
10				0.175	€ 437,500
11				0.100	€ 250,000
12			0.040		€ 52,000
13			0.160		€ 208,000
14		0.640			€ 416,000
Total of Route Sections Cost				€ 10,536,500	
Junctions	Junction Cost Rates (EUR / junction)			Junctions Cost	
	CAL 1: Minor	CAL 2: Moderate	CAL 3: Major		
	€ 70,000	€ 230,000	€ 1,000,000		
No of CL1				€ 0	
No of CL2		7		€ 1,610,000	
No of CL3				€ 0	
Total of Junctions Lower Costs				€ 1,610,000	
Land Acquisition	Average Land Value (EUR / sq.m.)		Land Take Cost		
	1,500 €				
Sum of Residential along Route (sq.m).	445		667,500 €		
Sum of Commercial along Route (sq.m).			0 €		
Sum of Agricultural along Route (sq.m).			0 €		
Sum of Industrial along Route (sq.m).			0 €		
Total of Route Junctions Cost				€ 667,500	
Structural Works Number	Construction costs (EUR / sq.m)		Structural Cost		
	€3,500				
1	775		1,162,500 €		
2	225		337,500 €		
Total of Structural Works Cost				€ 1,500,000	
SAS 1 Scheme Option 1A1 Total Cost =				€ 14,314,000	

SAS 1 Scheme Option 1A2						
Route Sections		Route Section Cost Rates (EUR / km)			Route Section Cost	
		CAL 1: Minor	CAL 2: Moderate	CAL 3: Major		
		€ 650,000	€ 1,300,000	€ 2,500,000		
1	Section Length (km)	0.670			€ 435,500	
2		0.110			€ 71,500	
3		1.850			€ 1,202,500	
4		0.045			€ 29,250	
5		0.090			€ 58,500	
6		1.880			€ 1,222,000	
7		0.160			€ 104,000	
8		0.640			€ 416,000	
Total of Route Sections Cost					€ 3,539,250	
Junctions		Junction Cost Rates (EUR / junction)			Junctions Cost	
		CAL 1: Minor	CAL 2: Moderate	CAL 3: Major		
		€ 70,000	€ 230,000	€ 1,000,000		
No of CL1	3				€ 210,000	
No of CL2		4			€ 920,000	
No of CL3					€ 0	
Total of Junctions Lower Costs					€ 1,130,000	
Land Acquisition		Average Land Value (EUR / sq.m.)			Land Take Cost	
		1,500 €				
Sum of Residential along Route (sq.m).					0 €	
Sum of Commercial along Route (sq.m).					0 €	
Sum of Agricultural along Route (sq.m).					0 €	
Sum of Industrial along Route (sq.m).					0 €	
Total of Route Junctions Cost					€ 0	
SAS 1 Scheme Option 1A2					Total Cost = € 4,669,250	

SAS1 Scheme Option 1B1					
Route Sections		Route Section Cost Rates (EUR / km)			Route Section Cost
		CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
		€ 650,000	€ 1,300,000	€ 2,500,000	
1	Section Length (km)	0.670			€ 435,500
2			0.110		€ 143,000
3			0.050		€ 65,000
4				0.100	€ 250,000
5				0.175	€ 437,500
6				0.730	€ 1,825,000
7				0.235	€ 587,500
8				0.680	€ 1,700,000
9				0.175	€ 437,500
10				0.100	€ 250,000
11			0.040		€ 52,000
12			0.160		€ 208,000
13			0.640		€ 416,000
Total of Route Sections Cost					€ 6,807,000
Junctions		Junction Cost Rates (EUR / junction)			Junctions Cost
		CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
		€ 70,000	€ 230,000	€ 1,000,000	
No of CL1					€ 0
No of CL2		7			€ 1,610,000
No of CL3					€ 0
Total of Junctions Lower Costs					€ 1,610,000
Land Acquisition		Average Land Value (EUR / sq.m.)		Land Take Cost	
		1,500 €			
Sum of Residential along Route (sq.m).		445		667,500 €	
Sum of Commercial along Route (sq.m).				0 €	
Sum of Agricultural along Route (sq.m).				0 €	
Sum of Industrial along Route (sq.m).				0 €	
Total of Route Junctions Cost					€ 667,500
Structural Works Number		Construction costs (EUR / sq.m)		Structural Cost	
		€3,500			
1		775		600,625 €	
2		225		50,625 €	
Total of Structural Works Cost					€ 651,250
SAS1 Scheme Option 1B1 Total Cost =					€ 9,735,750

SAS1 Scheme Option 1B2					
Route Sections		Route Section Cost Rates (EUR / km)			Route Section Cost
		CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
		€ 650,000	€ 1,300,000	€ 2,500,000	
1	Section Length (km)	0.670			€ 435,500
2		0.110			€ 71,500
3		1.055			€ 685,750
4			0.235		€ 305,500
5		0.140			€ 91,000
6		0.995			€ 646,750
7		0.160			€ 104,000
8		0.640			€ 416,000
Total of Route Sections Cost					€ 1,166,750
Junctions		Junction Cost Rates (EUR / junction)			Junctions Cost
		CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
		€ 70,000	€ 230,000	€ 1,000,000	
No of CL1	3				€ 210,000
No of CL2		4			€ 920,000
No of CL3					€ 0
Total of Junctions Lower Costs					€ 1,130,000
Land Acquisition		Average Land Value (EUR / sq.m.)		Land Take Cost	
		1,500 €			
Sum of Residential along Route (sq.m).				0 €	
Sum of Commercial along Route (sq.m).				0 €	
Sum of Agricultural along Route (sq.m).				0 €	
Sum of Industrial along Route (sq.m).				0 €	
Total of Route Junctions Cost					€ 0
SAS1 Scheme Option 1B2					Total Cost = € 2,296,750

SAS1 Scheme Option 1H1					
Route Sections	Route Section Cost Rates (EUR / km)			Route Section Cost	
	CAL 1: Minor	CAL 2: Moderate	CAL 3: Major		
	€ 650,000	€ 1,300,000	€ 2,500,000		
1	Section Length (km)	0.670		€ 435,500	
2			0.110	€ 143,000	
3			0.130	€ 169,000	
4				0.065	€ 162,500
5			0.200		€ 260,000
6				0.090	€ 225,000
7			0.155		€ 201,500
8				0.250	€ 625,000
9				0.100	€ 250,000
10			0.125		€ 162,500
11				0.235	€ 587,500
12			0.110		€ 143,000
13			0.640		€ 416,000
Total of Route Sections Cost				€ 1,146,500	
Junctions	Junction Cost Rates (EUR / junction)			Junctions Cost	
	CAL 1: Minor	CAL 2: Moderate	CAL 3: Major		
	€ 70,000	€ 230,000	€ 1,000,000		
No of CL1	4			€ 280,000	
No of CL2		2		€ 460,000	
No of CL3				€ 0	
Total of Junctions Lower Costs				€ 2,150,000	
Land Acquisition	Average Land Value (EUR / sq.m.)		Land Take Cost		
	1,500 €				
Sum of Residential along Route (sq.m).	1525		2,287,500 €		
Sum of Commercial along Route (sq.m).			0 €		
Sum of Agricultural along Route (sq.m).			0 €		
Sum of Industrial along Route (sq.m).			0 €		
Total of Route Junctions Cost				€ 2,287,500	
Structural Works Number	Construction costs (EUR / sq.m)		Structural Cost		
	€3,500				
1			0 €		
Total of Structural Works Cost				€ 0	
SAS1 Scheme Option 1H1 Total Cost =				€ 5,584,000	

SAS1 Scheme Option 1H2					
Route Sections		Route Section Cost Rates (EUR / km)			Route Section Cost
		CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
		€ 650,000	€ 1,300,000	€ 2,500,000	
1	Section Length (km)	0.670			€ 435,500
2		0.110			€ 71,500
3			0.195		€ 253,500
4			0.695		€ 903,500
5			0.110		€ 143,000
6		0.125			€ 81,250
7		0.235	0.235		€ 305,500
8		0.110			€ 71,500
9		0.640			€ 416,000
Total of Route Sections Cost					€ 1,017,250
Junctions		Junction Cost Rates (EUR / junction)			Junctions Cost
		CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
		€ 70,000	€ 230,000	€ 1,000,000	
No of CL1	4				€ 280,000
No of CL2		2			€ 460,000
No of CL3					€ 0
Total of Junctions Lower Costs					€ 740,000
Land Acquisition		Average Land Value (EUR / sq.m.)			Land Take Cost
		1,500 €			
Sum of Residential along Route (sq.m).					0 €
Sum of Commercial along Route (sq.m).					0 €
Sum of Agricultural along Route (sq.m).					0 €
Sum of Industrial along Route (sq.m).					0 €
Total of Route Junctions Cost					€ 0
SAS1 Scheme Option 1H2		Total Cost =			€ 1,757,250

SAS2 Scheme Option 2A1					
Route Sections		Route Section Cost Rates (EUR / km)			Route Section Cost
		CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
		€ 650,000	€ 1,300,000	€ 2,500,000	
1	Section Length (km)		0.690		€ 897,000
2				0.145	€ 362,500
3			0.215		€ 279,500
4				0.610	€ 1,525,000
5			0.675		€ 877,500
6			0.205		€ 266,500
7			0.365		€ 474,500
8			0.545		€ 708,500
9			0.690		€ 897,000
10				0.145	€ 362,500
Total of Route Sections Cost					€ 6,650,000
Junctions		Junction Cost Rates (EUR / junction)			Junctions Cost
		CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
		€ 70,000	€ 230,000	€ 1,000,000	
No of CL1	1				€ 70,000
No of CL2		4			€ 920,000
No of CL3					€ 0
Total of Junctions Lower Costs					€ 990,000
Land Acquisition		Average Land Value (EUR / sq.m.)		Land Take Cost	
		1,500 €			
Sum of Residential along Route (sq.m).		1942		2,912,355 €	
Sum of Commercial along Route (sq.m).		788		1,182,161 €	
Sum of Agricultural along Route (sq.m).				0 €	
Sum of Industrial along Route (sq.m).		119		178,725 €	
Total of Route Junctions Cost					€ 4,273,241
SAS2 Scheme Option 2A1		Total Cost =		€ 11,913,741	

SAS2 Scheme Option 2A2					
Route Sections		Route Section Cost Rates (EUR / km)			Route Section Cost
		CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
		€ 650,000	€ 1,300,000	€ 2,500,000	
1	Section Length (km)		2.325		€ 3,022,500
2			0.210		€ 273,000
3			0.365		€ 474,500
4			0.550		€ 715,000
Total of Route Sections Cost					€ 4,485,000
Junctions		Junction Cost Rates (EUR / junction)			Junctions Cost
		CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
		€ 70,000	€ 230,000	€ 1,000,000	
No of CL1		1			€ 70,000
No of CL2			4		€ 920,000
No of CL3					€ 0
Total of Junctions Lower Costs					€ 990,000
Land Acquisition		Average Land Value (EUR / sq.m.)		Land Take Cost	
		1,500 €			
Sum of Residential along Route (sq.m).				0 €	
Sum of Commercial along Route (sq.m).				0 €	
Sum of Agricultural along Route (sq.m).				0 €	
Sum of Industrial along Route (sq.m).				0 €	
Total of Route Junctions Cost					€ 0
SAS2 Scheme Option 2A2			Total Cost =	€ 5,475,000	

SAS2 Scheme Option 2A1					
Route Sections		Route Section Cost Rates (EUR / km)			Route Section Cost
		CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
		€ 650,000	€ 1,300,000	€ 2,500,000	
1	Section Length (km)		0.690		€ 897,000
2				0.145	€ 362,500
3			0.215		€ 279,500
4				0.610	€ 1,525,000
5			0.675		€ 877,500
6			0.205		€ 266,500
7			0.365		€ 474,500
8			0.545		€ 708,500
9			0.690		€ 897,000
10				0.145	€ 362,500
Total of Route Sections Cost					€ 6,650,000
Junctions		Junction Cost Rates (EUR / junction)			Junctions Cost
		CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
		€ 70,000	€ 230,000	€ 1,000,000	
No of CL1	1				€ 70,000
No of CL2		4			€ 920,000
No of CL3					€ 0
Total of Junctions Lower Costs					€ 990,000
Land Acquisition		Average Land Value (EUR / sq.m.)		Land Take Cost	
		1,500 €			
Sum of Residential along Route (sq.m).		1518		2,277,000 €	
Sum of Commercial along Route (sq.m).		664		995,250 €	
Sum of Agricultural along Route (sq.m).					
Sum of Industrial along Route (sq.m).		119		178,725 €	
Total of Route Junctions Cost					€ 3,450,975
SAS2 Scheme Option 2A1					Total Cost = € 11,091,475

Appendix G – Infrastructural Cost Estimate

See separate report

1. Scheme Option 1A1

For approximately 670m on the south-western carriageway at the M50 roundabout, the proposed works have been categorized as **minor**, i.e. the works associated with this section would involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

For approximately 640m on the north-eastern carriageway at the M50 roundabout, the proposed works have been categorized as **minor**, i.e. the works associated with this section would involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Moderate upgrade modifications would be required at the Connolly Hospital access/egress junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 160m along the Connolly Hospital access/egress ramp, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Connolly Hospital entrance junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 110m adjacent to the Talbot Downs residential estate, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Talbot Downs residential estate entrance junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 50m on the south-west N3 carriageway from the Talbot Downs residential estate entrance junction, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

For approximately 40m along the access ramp from the N3 north-east carriageway to Connolly hospital, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

For the next 100m approximately, on both carriageways of the N3, proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Some land take would be required and as such boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing would be needed along parts of the route.

For the next 175m approximately, on both carriageways of the N3, proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To

accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route.

For approximately 1.525km on the south-western carriageway of the N3, proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route. Works also include the widening of existing structures including the Mill Road overpass and the River Tolka culvert. Some third party landtake would be required to facilitate the provision of a retaining wall to the rear of properties on Mill Road.

For approximately 1.565km on the north-eastern carriageway of the N3, proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route. Works also include the widening of existing structures including the Mill Road overpass and the River Tolka culvert.

Moderate upgrade modifications would be required at the N3 off ramp/Blanchardstown access/egress/Blanchardstown Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 90m on the Blanchardstown Road overpass, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Moderate upgrade modifications would be required at both Blanchardstown Road/Old Navan Road/N3 access/egress junctions i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 45m between the N3 off ramp/Blanchardstown access/egress/Blanchardstown Road junction and the Crowne Plaza roundabout, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Crowne Plaza roundabout i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

2. Scheme Option 1A2

For approximately 670m on the south-western carriageway at the M50 roundabout, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

For approximately 640m on the north-eastern carriageway at the M50 roundabout, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Minor modifications would be required at the Connolly Hospital access/egress ramp junction, i.e. the works associated with this categorization include: the laying of Anti-skid surface where necessary, removal and replacement of existing road markings. No land take would be required at this junction and as such no property boundary re-instatement works would be needed.

For approximately 160m along the Connolly Hospital access/egress ramp, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Minor modifications would be required at the Connolly Hospital entrance junction, i.e. the works associated with this categorization includes: the laying of Anti-skid surface where necessary, removal and replacement of existing road markings. No land take would be required at this junction and as such no property boundary re-instatement works would be needed.

For approximately 110m adjacent to the Talbot Downs residential estate, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Minor modifications would be required at the Talbot Downs residential estate entrance junction, i.e. the works associated with this categorization include: the laying of Anti-skid surface where necessary, removal and replacement of existing road markings. No land take would be required at this junction and as such no property boundary re-instatement works would be needed.

For approximately 1.85km from the Talbot Downs residential estate entrance junction along the N3 north-western carriageway and off ramp at Blanchardstown Town Centre, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

For approximately 1.88km along the N3 access ramp at Blanchardstown Town Centre and the N3 south-western carriageway, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Moderate upgrade modifications would be required at the N3 off ramp/Blanchardstown access/egress/Blanchardstown Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 90m on the Blanchardstown Road overpass, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Moderate upgrade modifications would be required at both Blanchardstown Road/N3 access/egress ramp junctions, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 45m between N3 off ramp/Blanchardstown access/egress/Blanchardstown Road junction and the Crowne Plaza roundabout, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Moderate upgrade modifications would be required at the Crowne Plaza roundabout, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

3. Scheme Option 1B1

For approximately 670m on the south-western carriageway at the M50 roundabout, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

For approximately 640m on the north-eastern carriageway at the M50 roundabout, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Moderate upgrade modifications would be required at the Connolly Hospital access/egress junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 160m, along the Connolly Hospital access/egress ramp works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Connolly Hospital entrance junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 110m adjacent to the Talbot Downs residential estate, the proposed works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Talbot Downs residential estate entrance junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 50m, travelling north-west along the N3 from the Talbot Downs residential estate entrance junction works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

For approximately 40m along the access ramp from the N3 north-east carriageway to Connolly hospital, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

For the next 100m approximately, on both carriageways of the N3, proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Some land take would be required and as such boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing would be needed along parts of the route.

For the next 175m approximately, on both carriageways of the N3, proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To

accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route.

For approximately 730m, on the south-western carriageway of the N3, proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route. Works also include the widening of existing structures including the Mill Road overpass and the River Tolka culvert. Some 3rd party land take would be required to facilitate the provision of a retaining wall to the rear of properties on Mill Road.

For 680m approximately, on the north-eastern carriageway of the N3, proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route. Works also include the widening of existing structures including the Mill Road overpass and the River Tolka culvert.

Moderate upgrade modifications would be required at the Snugborough Road/Waterville Road junction overpass, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

Moderate upgrade modifications would be required at the Snugborough Road overpass/N3 access junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services

(i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

Moderate upgrade modifications would be required at the L3020/Snugborough road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For the next 235m approximately, along the L3020, proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/relocated or replaced. Boundary re-instatement works (central median, walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route.

Moderate upgrade modifications would be required at the L3020/Blanchardstown Town Centre road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

4. Scheme Option 1B2

For approximately 670m on the south-western carriageway at the M50 roundabout, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

For approximately 640m on the north-eastern carriageway at the M50 roundabout, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Minor modifications would be required at the Connolly Hospital access/egress ramp junction, i.e. the works associated with this categorization include: the laying of Anti-skid surface where necessary, removal and replacement of existing road markings. No land take would be required at this junction and as such no property boundary re-instatement works would be needed.

For approximately 160m, the proposed works along the Connolly Hospital access/egress ramp have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Minor modifications would be required at the Connolly Hospital entrance junction, i.e. the works associated with this categorization includes: the laying of Anti-skid surface where necessary, removal and replacement of existing road markings. No land take would be required at this junction and as such no property boundary re-instatement works would be needed.

For approximately 110m adjacent to the Talbot Downs residential estate, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Minor modifications would be required at the Talbot Downs residential estate entrance junction, i.e. the works associated with this categorization include: the laying of Anti-skid surface where necessary, removal and replacement of existing road markings. No land take would be required at this junction and as such no property boundary re-instatement works would be needed.

For approximately 1.055km along the south-western carriageway of the N3 and the off ramp towards the Snugborough overpass, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

For approximately 995m along the north-eastern carriageway of the N3, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Moderate upgrade modifications would be required at the Snugborough Road/Waterville Row junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the

provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

Moderate upgrade modifications would be required at the Snugborough Road/N3 access junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 140m across the Snugborough overpass, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Moderate upgrade modifications would be required at the L3020/Snugborough road junction, the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 235m along the L3020, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the L3020/Blanchardstown Town Centre road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

5. Scheme Option 1H1

For approximately 670m on the south-western carriageway at the M50 roundabout, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

For approximately 640m on the north-eastern carriageway at the M50 roundabout, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Moderate upgrade modifications would be required at the Connolly Hospital access/egress junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 110m on both the turning lane into Connolly Hospital on approach from the N3 and on egress from the M50 roundabout, adjacent to the Talbot Downs residential estate works, have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Talbot Downs residential estate entrance junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 130m adjacent to the Woods End residential estate, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

For the next 65m approximately, the proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/relocated or replaced. Some land take would be required and as such boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route.

Major modifications would be required at the Castleknock Road/Old Navan Road junction, i.e. the works associated with this categorization include: removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. Extensive works including road re-alignment would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 200m on approach to the Church Avenue junction, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

For the next 90m approximately, the proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/relocated or replaced. Some land take would be required and as such boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route.

For the next 155m approximately on Main Street, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be

protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

For the next 250m, approximately, the proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Some land take would be required and as such boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route.

Moderate upgrade modifications would be required at the Main Street/Clonsilla road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For the next 100m, approximately, the proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Some land take would be required and as such boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route.

For the next 125m, approximately, on approach to the Snugborough Road/L3020 junction, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road

signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the L3020/Snugborough road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For the next 235m approximately, along the L3020, proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water and gas) would be protected/relocated/diverted. To accommodate the road widening, a number of trees would be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/relocated or replaced. Boundary re-instatement works (central median, walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route.

Moderate upgrade modifications would be required at the L3020/Blanchardstown Town Centre road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

6. Scheme Option 1H2

For approximately 670m on the south-western carriageway at the M50 roundabout, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

For approximately 640m on the north-eastern carriageway at the M50 roundabout, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Minor modifications would be required at the Connolly Hospital access/egress ramp junction, i.e. the works associated with this categorization include: the laying of Anti-skid surface where necessary, removal and replacement of existing road markings. No land take would be required at this junction and as such no property boundary re-instatement works would be needed.

For approximately 110m adjacent to the Talbot Downs residential estate, on both the turning lane into Connolly Hospital on approach from the N3 and on egress from the M50 roundabout, works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Minor modifications would be required at the Talbot Downs residential estate entrance junction, i.e. the works associated with this categorization include: the laying of Anti-skid surface where necessary, removal and replacement of existing road markings. No land take would be required at this junction and as such no property boundary re-instatement works would be needed.

For approximately 195m adjacent to the Woods End residential estate, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Minor modifications would be required at the Castleknock Road junction, i.e. the works associated with this categorization include: the laying of Anti-skid surface where necessary, removal and replacement of existing road markings. No land take would be required at this junction and as such no property boundary re-instatement works would be needed.

For the next 695m approximately on Main Street, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Minor modifications would be required at the Main Street/Clonsilla road junction, the works associated with this categorization include: the laying of Anti-skid surface where necessary, removal and replacement of existing road markings. No land take would be required at this junction and as such no property boundary re-instatement works would be needed.

For the next 110m approximately, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

For approximately 125m on approach to the Snugborough Road/L3020 junction, the proposed works have been categorized as **minor**, i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway and the cycle lanes. No land take would be required along this section.

Moderate upgrade modifications would be required at the Snugborough Road/L3020 junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 235m along the L3020, works have been categorized as **minor** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route would be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the L3020/Blanchardstown Town Centre road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

7 Scheme Option 2A1

Moderate upgrade modifications would be required at the Cabra Road/Navan Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 690m, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

For the next 145m approximately, the proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water and gas) to be protected/relocated/diverted. To accommodate the road widening, a number of trees to be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/ relocated or replaced. Some land take would be required and as such boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route.

For approximately 215m, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

For the next 610m approximately, the proposed works have been categorized as **major**, i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications,

water and gas) to be protected/relocated/diverted. To accommodate the road widening, a number of trees to be removed along the route and as such, limited earthworks works would be also required along with full depth pavement reconstruction and associated road markings. Road signage would be removed/relocated or replaced. Some land take would be required and as such boundary re-instatement works (walls, gates, driveways, etc.) would be needed. Existing road markings would be removed and replaced. Local road re-surfacing needed along parts of the route.

For 675m approximately, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Castleknock Road/Navan Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 205m, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Phoenix Park Avenue/Navan Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For 365m approximately, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be

protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Minor modifications would be required at the Navan Road/Navan Road Parkway Train Station Slip Road junction, i.e. the works associated with this categorization include: laying of Anti-skid surface where necessary, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such no property boundary re-instatement works would be needed.

For 545m approximately, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the R102/Auburn Avenue/Navan Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

8 Scheme Option 2A2

Moderate upgrade modifications would be required at the Cabra Road/Navan Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 2.33km, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Castleknock Road/Navan Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 210m, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Phoenix Park Avenue/Navan Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 365m, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Minor modifications would be required at the Navan Road/Navan Road Parkway Train Station Slip Road junction, i.e. the works associated with this categorization include: laying of Anti-skid surface where necessary, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such no property boundary re-instatement works would be needed.

For 545m approximately, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Auburn Avenue/R102/Navan Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

9 Scheme Option 2A3

Moderate upgrade modifications would be required at the Cabra Road/Navan Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 2.33km, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Castleknock Road/Navan Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 210m, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Phoenix Park Avenue/Navan Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

For approximately 365m, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Minor modifications would be required at the Navan Road/Navan Road Parkway Train Station Slip Road junction, i.e. the works associated with this categorization include: laying of Anti-skid surface where necessary, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such no property boundary re-instatement works would be needed.

For 545m approximately, works have been categorized as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) would have to be protected/relocated/diverted. Safety barriers/guardrails would be removed and relocated and/or replaced. Road signage and road furniture (bins and bollards) would be removed/ relocated or replaced. No land take would be required along this section.

Moderate upgrade modifications would be required at the Auburn Avenue/R102/Navan Road junction, i.e. the works to accommodate the proposed design include: General site clearance, removal and replacement of kerbs, footways and paved areas, laying of Anti-skid surface, Protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. No land take would be required at this junction and as such property boundary re-instatement works would be needed.

Appendix H – Concept Design Drawings and Staging Diagrams

1. MCA Scheme Options

2. Emerging Preferred Scheme Option

1. MCA Scheme Options

2. Emerging Preferred Scheme Option